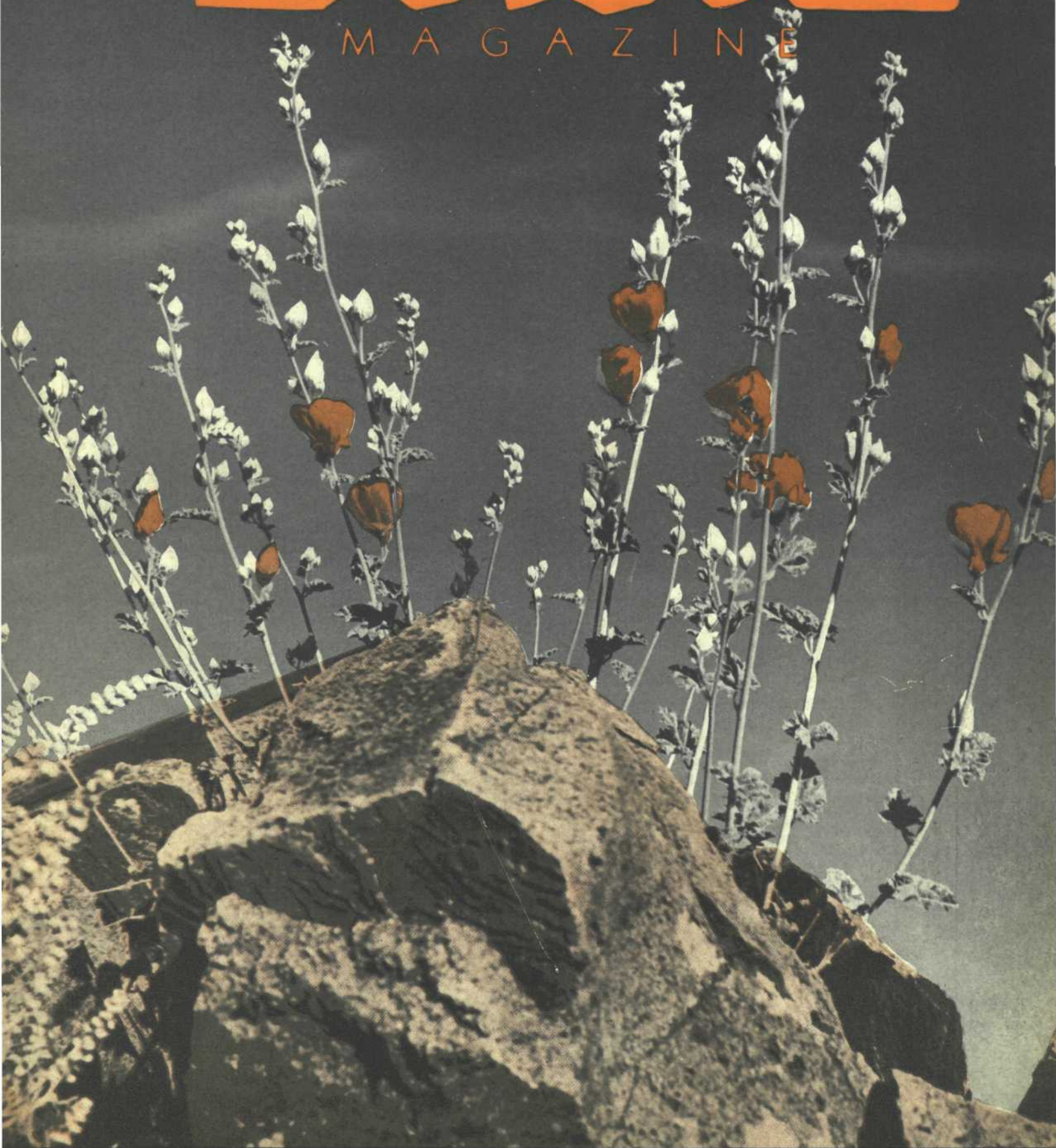


THE

Desert

M A G A Z I N E



APRIL, 1946

25 CENTS

DESERT NEVER GROWS OLD . . .

The mapped field trips, the adventure, the lost mines, the history and the life of ancient tribesmen—the stories and maps and pictures that appear every month in Desert Magazine hold no less interest today than when they were printed.

To enable recent subscribers to Desert to acquire the rich fund of desert information that has appeared in earlier issues of the magazine, there are listed on this page several special assortments of back numbers which still can be supplied. Some are newsstand returns, but all are complete and in good condition.

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THE *Desert* MAGAZINE
El Centro, California

DESERT Close-Ups

• To add some humor to future issues of DESERT, Frank Adams has taken time out to draw a series of cartoons portraying trials and tribulations of a tenderfoot on the desert. "Time out" was taken from his work for *Saturday Review of Literature*, *Colliers*, *This Week Magazine*, *New York*, and other publications. His book, *The Home Front*, probably is the best known work in the country among home front workers. Frank is a brother of Arles Adams, frequent companion of DESERT's editor on exploring trips into desert canyons.

• George Bradt, just returned from European army service, has settled in El Paso, Texas, as civil service army photographer. He and his wife Sis are ready to start out photographing the spring bird nesting season—and DESERT readers will be seeing more of their desert bird features.

• Jerry Lauder milk's article on nature's methods of seed dispersal, which appeared in the February issue, has proved so popular that he is now preparing another story about desert plants and their specializations in "seed trickery."

DESERT CALENDAR

- Apr. 3-7—Desert Circus, Palm Springs, California.
 Apr. 5-7—Imperial Valley Roundup, El Centro, California.
 Apr. 5-7—Annual Art Exhibit, sponsored by Boulder City Women's Club, Boulder City, Nevada. Desert canvases by artists of California, Nevada, Utah and Arizona.
 Apr. 6-7—Sierra Club of Southern California desert trip to Joshua Tree national monument.
 Apr. 6-7—Gila River Roundup, Safford, Arizona.
 Apr. 12—Annual Flower and Hobby show, Mecca, California.
 Apr. 12-14—Phoenix Rodeo, Phoenix, Arizona.
 Apr. 13-20—Easter vacation trip of Sierra Club to Casa Grande Ruins, Arizona.
 Apr. 14—Yaqui Easter Ceremony, subject of lecture by H. T. Getty, Arizona State Museum, University of Arizona, Tucson.
 Apr. 21—Easter Services, Travertine Point, near Salton Sea, California.
 Apr. 27-28—Ramona Pageant, Ramona Bowl, Hemet, California. (Also May 4-5, 11-12.)

CREED OF THE DESERT

By JUNE LEMERT PAXTON
 Yucca Valley, California

The night has a voice, and the voice a song
 That lulls one to quiet rest;
 The morn has a faith, a faith that is strong—
 A constant hope in her breast.



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APRIL, 1946

Number 6

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The Desert's Lure

By E. A. BRININSTOOL

You think the desert's lonely, pard, but 'tain't, a single bit,
You always miss it mighty hard when you're away from it.
Its very vastness seems to cheer, and lure you on and on,
Where rosy streaks of light appear to tinge the East at dawn.

Its wide wastes reach a hand to you across its sand-dunes deep,
Its sagebrush billows call to you off where the dim trails creep.

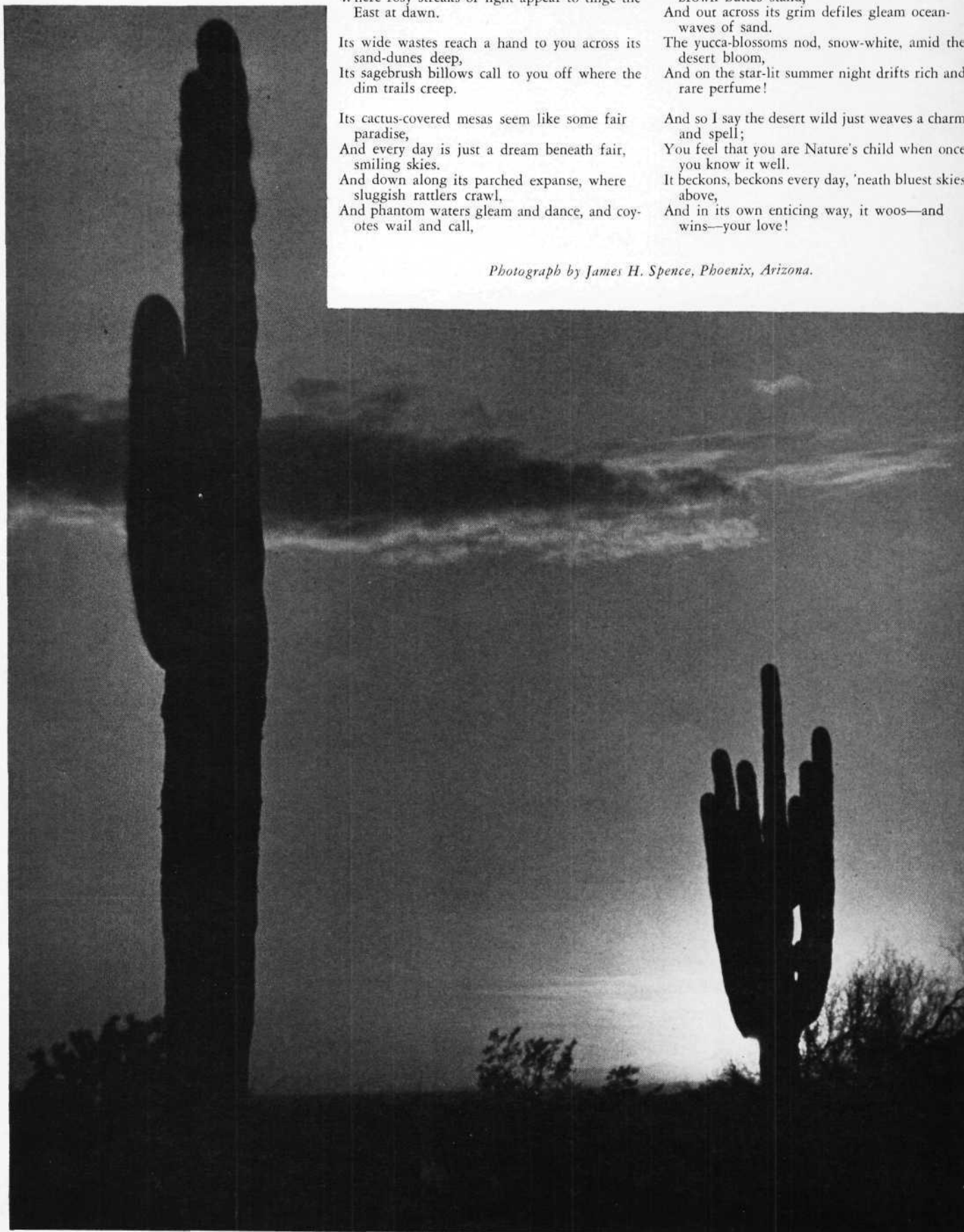
Its cactus-covered mesas seem like some fair paradise,
And every day is just a dream beneath fair, smiling skies.
And down along its parched expanse, where sluggish rattlers crawl,
And phantom waters gleam and dance, and coyotes wail and call,

There's something saying to you "Come!" and something bids you go,
Because those arid lands are Home—the only Home you know!

Its mesas stretch for endless miles, far, far, where brown buttes stand,
And out across its grim defiles gleam ocean-waves of sand.
The yucca-blossoms nod, snow-white, amid the desert bloom,
And on the star-lit summer night drifts rich and rare perfume!

And so I say the desert wild just weaves a charm and spell;
You feel that you are Nature's child when once you know it well.
It beckons, beckons every day, 'neath bluest skies above,
And in its own enticing way, it woos—and wins—your love!

Photograph by James H. Spence, Phoenix, Arizona.





Although the small Navajo sheep yield less than three pounds of wool, it is the finest for hand looming, having almost straight fibers and being comparatively free from grease. The government in cooperation with the tribal council is attempting to breed a finer quality of sheep which will retain the good points of the native and at the same time produce mutton for food, leather for commercial market. One of these flocks is shown above, at Experimental Sheep laboratory on Navajo reservation.
Navajo Agency photo.

Weaving Girl of the Navajo

By DAMA LANGLEY

Weaving a Navajo rug is not just a matter of sitting down at the loom and evolving a beautiful geometric design. Each weaver usually spends at least a full week preparing her wool—she even shears it from the back of the little Navajo sheep. In this article, Mrs. Langley takes her readers behind the scenes as she describes the hard work and the unpicturesque tasks of carding, spinning, washing and dyeing which the Navajo woman performs before she begins to weave.

ALL NAVAJO rugs are genuine!" One of the great art stores in New York had advertised a Southwest exhibit, and I took a postman's holiday to join the visitors gathered around a Navajo loom swung on juniper posts. It held a half finished rug. In the background was a hogan, and the painted scenery showed a sage studded valley reaching to blue green mountains. In front of the loom, surrounded by Hopi baskets filled with colored yarn, Adele Haspah sat and calmly pulled woolen strands into place. She seemed as much at home as though she were in front of her own hogan watching her flocks graze on the hills of Ganado.

"All Navajo rugs are genuine," she was saying, and her audience listened with respect while she told them salient facts about Navajo weaving. Adele's smooth black hair was bound in the typical club at the back of her neck, and kept in place by wrappings of red yarn. I wondered if any of her listeners knew that somewhere tucked among the dark strands a turquoise was hidden to guard her against the evil spirits of this great city. She wore a brown plush jacket fastened with dozens of handmade silver buttons. Her skirts were voluminous billows of orange sateen banded with black and red braid, and on her feet were buckskin moccasins held at the ankle

with a silver button. She sat on her sheepskin rug and plied her thread with all the dignity of a portrait painter.

"So here we are, together again," Adele mused. Her hours of exhibition weaving were ended for the day and we drank our coffee in a famous cafe and watched the restless crowds surge by. "And I'll bet you are just as homesick as I am!" she added.

Just as easily as that we resumed our interrupted friendship. I first knew Adele when she was a student at Sherman Institute. She was ten years old then, a very rebellious young Navajo snatched from her beloved Arizona desert. Those were the days when we were trying to make the

Indians into poor imitations of the white race by ignoring their way of life. Adele steadfastly refused to lose her identity under a thin veneer of civilization. When colored crayons were placed before her she drew a hogan with grazing sheep surrounding it. When she was older and the authorities thought she was educated enough to be sent home she was asked to write an essay on her ambitions and aspirations. She wrote one sentence: "I'm going home to my own people and weave blankets!" She did.

"Your rugs are always good, Adele," the trader said. "Why don't you teach the other weavers how to wash and dye the wool, and string the warp to make their rugs firm and even? I will pay you for the time you spend with them." This trader, who has just published a booklet on the special type of blankets made in his region, takes little credit for his work. But through his suggestion Navajo rugs again became a matter of special pride with their makers.

Adele would not leave her mother's hogan to teach. Those women who really wanted to improve their weaving must bring their wool to her and prepare it and weave it where she lived. The trader had a guest hogan built nearby and it was always occupied.

The Navajo loom has changed little since weaving has been known among the Indians. While the Navajo are acknowledged to be the finest weavers of hand-loomed rugs, they did not learn to weave wool until late in the 17th century. We are told that they wandered down to the southland some eight hundred years ago from the far north, and that they were wearing shredded bark and skin garments. They did not associate themselves with any group of Indians, but pillaged and robbed both Mexican and Indian villages until they had accumulated sufficient worldly goods and followers to form a distinct tribe. Thus was the Navajo tribe evolved.

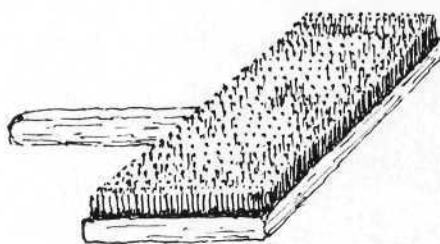
With the coming of the Spanish Conquistadors, came flocks of sheep and herds of horses, the first seen in the Southwest. The sheep were to feed the soldiers and some of them were given to the peaceful pueblo tribes, none to the Navajo. But the Navajo got them just the same. When the Indian uprising came in 1680 and the terrified pueblo Indians went into hiding from vengeful Spaniards their flocks were left to shift for themselves. Then the Navajo took them, and they also accepted Hopi families who drove their flocks ahead of them into Navajo canyons for protection. Some of these pueblos stayed and joined the Navajo tribe, and we believe they taught the Navajo the art of weaving with wool. The Navajo today use exactly the same type of crude loom carried to their country by the fleeing pueblos.

The Navajo settled down to become herdsmen and take care of the defenseless



This Navajo girl is holding a bunch of fleece just clipped from sheep raised on the Navajo reservation. Navajo Agency photo.

sheep which became their mainstay. It was through slaughtering their flocks that Kit Carson's army forced the Navajo to go into exile in payment for their repeated crimes against the white men. Before this exodus one historian reports: "This northern tribe stays in one place tending their



Carding is hard work. Arms and hands cramp before it is finished. Two carders like the above are used—a handful of wool is put on one card and the other is raked across it.

flocks. They manufacture coarse blankets in an amount excessive for their needs. They trade the surplus in New Mexico for food and goods." Jonathan Letterman of the Smithsonian wrote: "The spinning and weaving is all done by hand and by the women. The thread is made entirely by hand and is coarse and uneven. The

coarse thick and heavy blankets are woven on rude looms such as the Pueblo Indians use. Many are so closely woven they hold water. The colors are blue, red, black and yellow woven in bands and diamonds. Occasionally a blanket is seen which is quite handsome and costs at the same time the extravagant price of forty or fifty dollars; these however are very scarce, and are generally woven for a special purpose."

That was the status of the Navajo rug when, in 1868, the Navajo were permitted to return to their towering mountains, their Painted Desert and sage covered plains. Each returning Navajo was given four sheep and two goats by the Government. The troops doled out rations until the Navajo again could support themselves. The quickest way to solve their economic problem was to weave blankets as quickly as possible and sell them to the soldiers. Trading posts, which sprung up near military points introduced cotton warp from eastern mills and sold it to the weavers. The Navajo rug lost its beauty and worth.

Those get-rich-quick traders had their brief day and departed. They were replaced by frontiersmen definitely interested in the Navajo rug for which they traded goods. In exchange for the merchandise with which they stocked their fort-like log



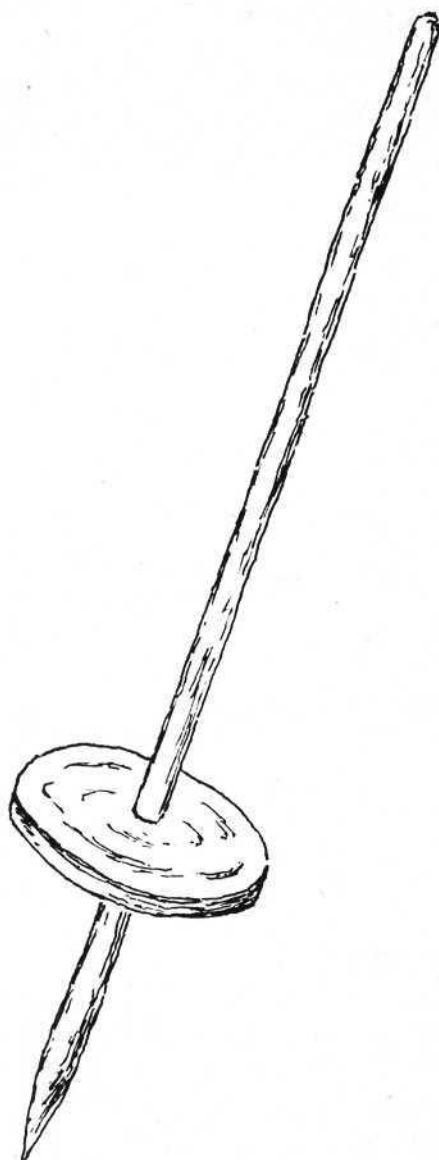
The hogan supports the heavy weaving frame for a Navajo rug. Photo, taken on the Navajo reservation in western New Mexico, shows four women preparing the wool for the rug, while the fifth works at the loom. New Mexico State Tourist Bureau photo.

and stone stores they accepted sacks of wool, live lambs, pieces of hand fashioned copper and silver jewelry and the Navajo rugs. The Navajo brought them wildcat pelts and tanned deer hides. Where once they had traded their blankets to the Utes for horses and hides, and to the Hopis for dried peaches and baskets, they now turned to the white market. Traders began to send blankets to their eastern friends, and they often shipped bales of them to eastern markets to be sold on commission. The quick half cotton rug was not popular now, so once again the Navajo turned back to their hand spun warp and native dyes. In 1890 Navajo rug sales amounted to \$40,000. Fifty years later the figure was \$385,000.

The Indian Service, realizing the economic value of weaving to the tribe, in 1932 established classes in the schools. The finest weavers from the tribe of 54,000 Navajo were induced to take charge of the instruction and keep alive this vital craft. Adele Haspah refused to leave the reservation. She said:

"I will teach any girl or woman what I know if she will come here to my mother's home and work with the materials at hand. School weaving is made too easy for the girls. After all they will have to do most of their weaving here on the reservation and they should learn how to manage with facilities here. The girls must be willing

Navajo spindle usually is a homemade product constructed of tough wood, polished with sandstone, then buffed with doeskin until satiny. This is the only tool the women use for their spinning—and it makes the right arm very tired.



to handle the wool exactly as I say; they must make their own dyes when vegetable colors are used. Each weaver will be free to choose the colors used in her rug."

Adele, great weaver that she is, taught her disciples the importance of the right sort of wool for hand looming. These native sheep yield less than three pounds of wool, and only the portion growing on the back is suitable for spinning and weaving. Wool from this type of sheep has long almost straight fibers and is comparatively free from grease, which makes it less likely to hold sand and dirt. Being greaseless it can be cleansed with the suds made by beating yucca roots into a pulp and mixing with water. And speaking of water, it is so scarce on the Navajo reservation there is little to spare either for washing or dyeing wool.

Women coming to Adele for post graduate instruction in how to make fine rugs found that they were expected to shear the wool from the sheep's back, pick it free of trash, card it, spin it, wash and dye it with colors of their own making, or with the Dupont and other commercial dyes approved by the Indian Arts and Crafts board. All these things must be mastered before they were permitted to begin actual weaving.

There is much more labor involved in making yarn than in weaving it. Usually several women get together to help one another with the shearing. Wool for weaving is kept apart from the wool intended for sale at the trading post. Over a number of years spent around the Navajo reservation I made notes on the preparation of wool for weaving. Most of these were jotted down while watching Adele and her pupils.



To the women and girls usually falls the responsibility of herding the family sheep and goats. This Navajo girl, wearing the ever present blanket, is standing before her home, a hogan made of logs and earth. Navajo Agency photo.

The long fibered wool from the back of the sheep was picked and fluffed until no burrs or twigs remained in it. Then it was carded. The carders are two flat pieces of wood about five inches wide and ten inches long, with a handle on the back of each one. On the front side of each board are rows and rows of wire teeth set in leather which is nailed to the board. A handful of wool is put on one card and the other raked across it. This is done time and again until the curl is taken out of the wool and the fibers lie straight.

When the wool is straight it shapes itself into a roll maybe a foot long and as big around as a finger. This roll is laid on a cloth and more wool put on the cards. The carding is hard work and the arms and hands cramp and tire long before it is finished. The hot sun makes the wool smell strong, and Adele had a big finished rug swung between two piñon trees to shelter the workers. I suspected her of placing her beautiful work there to encourage the women in their task. Each carder had a clean turkish towel over her full cotton skirts to protect them from the wool. Turkish towels are something quite special with Navajo women. They often use them

shawl-wise over their heads while herding sheep in the hot sun.

After the wool is carded it is spun. Most of Adele's pupils preferred carding and tried to let the other women do the spinning, but Adele firmly insisted that each woman should spin the yarn she was to use in her rug. The trader who would buy the rugs stood behind Adele in all her decisions and there was no appeal. Spinning makes the right arm very tired. Here is where the brain and the eye and the hand must have perfect coordination if the project is to be successful. The only tool used by Navajo women in their spinning is a homemade spindle constructed of two pieces of wood. The first piece is about the size of a saucer and is round and thin. It is made of tough wood, usually oak, and polished with a sand stone, then buffed with doeskin until it gleams like satin. There is a hole in the exact center about large enough to take a lead pencil, and through this is driven a straight stick perhaps 20 inches long. This part of the spindle is made of seasoned willow, dried and polished smooth as glass. The round disk of wood is pushed down on the tapered stick until it rests some six inches from

the bottom. Then the tip of the stick is shaped until it will turn easily on the hard ground, rather like a top's spinning. The entire spindle is rubbed again and again with buckskin which seems to impart some oil to the wood.

A strip of the carded wool is twisted around the top end of the spindle, and the worker gives it a brisk twirl while she holds on to the end of the wool with her left hand, pulling it cautiously and stretching it with little jerks until it has about doubled in length and thinned proportionately. The next roll of wool is dextrously twisted on to the spun yarn and the twirling and stretching and jerking begin again. Very seldom do the strands separate.

I picked up a spindle one day while talking with Adele and began to try my skill.

"You are a Hopi," she said, watching my hands. When I asked what she meant she explained that the Navajo spinner gives a left hand twist to the thread while Hopi women spin their yarn right handed like white thread. Even when bayeta cloth was raveled by Indians to be respun and woven into their blankets the Navajo turned their backwards from the way it

had been spun. That is one way to determine if a modern rug has been woven by Navajo or Pueblos—examine the twist of the yarn.

The spinning goes on all day long among Navajo women. They spin as we knit—taking their spindles while they watch the sheep. Even the children and old women carry the work to the grazing grounds with them. When the spindle is filled with the loosely spun coarse yarn, the spinner slips the mass over the top of the stick and begins to fill the spindle again. At the end of the day the loosely spun yarn is tied into a shawl and the next day it is spun again. This time the twisting and jerking is harder so that the thread thins out into a strong tight yarn. For saddle blankets and heavy rugs the two spinnings are enough, but for finer blankets and ceremonials, a third and even a fourth spinning is sometimes necessary.

When the spinning is completed the yarn is tied into hanks and washed. Adele was supplied with barrels of water hauled from an irrigation project, and each learner went out and dug down around a yucca root until she could hack off sections of the huge root. These chips were crushed in a stone mortar until they were pulpy. Water was added and the suds rubbed well into the spun wool. Then it was wrung out of the suds and dipped into clear water where it was squeezed and sloshed around until the water was very dirty. Since it was possible to give the second rinsing, Adele advised it. Then each woman spread her yarn on sage bushes in the sun and kept turning it and shaking it until it was white and fluffy and dry.

Some of the women had decided to make natural color rugs which eliminated the necessity of dyeing colors. In their spinning they had skillfully blended wool from the so-called black sheep, with white wool and made different shades of brown. Black wool seldom is a satisfactory black when it comes from the sheep, so it has to be dyed. The first day all the women dyed a portion of their yarn black, for that is one of the most frequently used colors in Navajo weaving.

"We will make *Eel-gee-Bay-tab*," Adele said, as she set a big iron kettle of water over the fire. While some of the women went to gather small branches of aromatic sumac (*Rhus trilobata*), which they later put into the pot to boil for a couple of hours, others brought out their supply of yellow ocher, roasted it in a frying pan until it was a dull red, then dumped piñon gum in with it. This was stirred to a paste which soon carbonized and powdered. After the sumac twigs had been boiled they were raked out of the kettle and the carbonized powder was poured in. The mixture made what really is a tannic ink. The women put their hanks of yarn into this black dye and boiled them for a few minutes. It amazed me that each one could distinguish her particular hank.

When all the yarn had been boiled it was hung up in the piñon trees to dry. Adele didn't waste the black dye. She dropped a sheepskin, which had been tanned with the wool on, into the mixture and it came out a lovely shining black, which I so coveted she sold it to me.

For a native red dye, a fire was built on a big flat rock. It was made of juniper limbs, and as fast as the fuel was consumed more branches were added. Then the ashes were cooled and collected in a coarse cloth. Roots of mountain mahogany (*Cercocarpus parvifolius*) were dug and washed. These roots were pounded until the bark came off, then they were put in the kettle to boil. The bark was beaten into a pulp in a metate. Then the juniper ashes and the pulverized root bark were added to the roots boiling in the kettle and all cooked together for several hours. This deep cardinal red is beautiful. Adele said the juniper

ashes, called *Day-Deed-Lit* gave it the wine-like tones.

I watched them make yellow dye from the flowers of the rabbit bush which Adele called *Kay-el-soly* (*Bigelovia graveolens*). They boiled the flowers for hours then added alunogen, a native alum found in small deposits scattered over the desert. Unwashed yarn is put into this mixture and comes out a clear golden yellow. It seems to require the natural oil on the wool.

The women made a purple dye from the blue or purple corn grown in Hopiland, and they made blue dye from larkspur and alfalfa. I began to learn why Navajo women greeted with outstretched arms the commercial dyes brought to them by traders.

There was not a woman among the weavers who had put in less than a full week's work getting ready to weave a rug, and so far nothing was ready but the wool.

Weaving is a popular subject at Fort Wingate vocational school in New Mexico. Mae Hunter and Louise Sandoval, Navajo girls, are spinning wool to be used in weaving rugs. Navajo Agency photo.



Sez Hard Rock Shorty of Death Valley

By WALT MILLER



"Yep, they's a lot o' them desert tortoises down Chuckawalla way," Shorty was saying. "An' if I ever caught a feller carryin' one of them away fer pets I'd blow him full o' holes. They belongs on the desert."

Shorty got out his jackknife and picked up the odd-shaped piece of wood he was whittling, while the tourists on the porch of the Inferno store waited for him to go on.

"Them tortoises never hurt nobody," he added. "An' I remember one time when they wuz mighty helpful critters. They saved me a long stretch o' walkin' when the sun wuz hot enough to blister a lizard's feet."

"One o' them minin' engineers wanted me to show him some manganese claims I had down in the Old Woman mountains. He had one o' them station wagons, an' he said it would go anyplace. He wuz always lookin' fer shortcuts. Said he could almost climb trees with that gas buggy o' his'n, and as fer sand dunes—he'd take 'em in high."

"Well, the shortest way to the Old Womans was up Bull-whacker canyon where there used to be an old road until it washed out. It was sandy goin' but after all that talk I figgered we'd have no trouble."

"But that car wasn't so good. About two-thirds the way up the canyon the wheels started chatterin' and then the thing stopped. And when he tried to start it just began buryin' itself in the sand."

"So we got out an' I went lookin' for some brush, and in the shade of a clay bank I saw a couple of tortoises dozin'. They got hard shells, yu know, and so I brought 'em over and we jacked up the hind wheels and we put one o' them reptiles under each wheel. Easier'n cuttin' brush or packin' boulders. The engineer thought that was a pretty good idea so I hunts around and finds a couple o' more tortoises fer the front wheels."

"We wuz short o' water by that

DESERT QUIZ

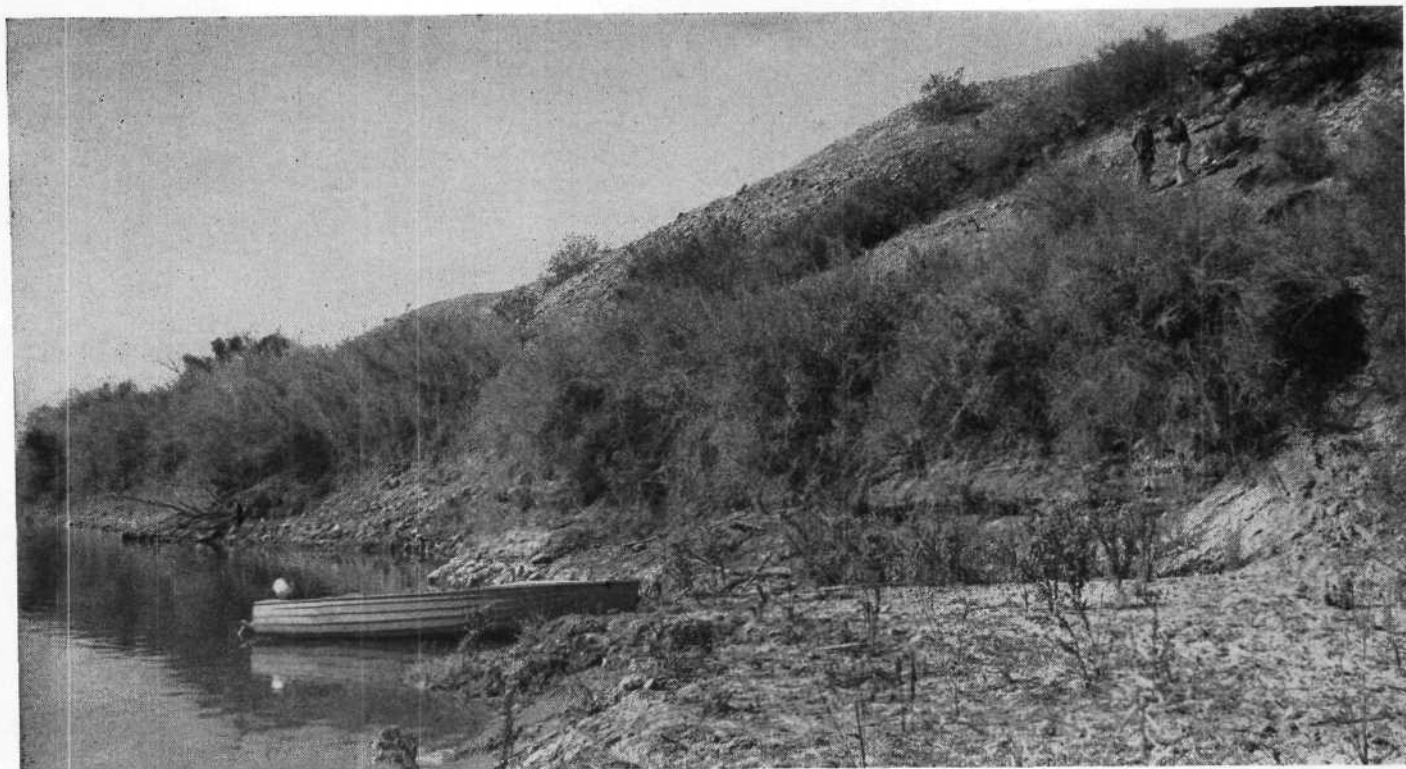
This quiz is just a little game to be played by those with eager, curious minds. You'll miss some of the answers, but it is worthwhile to make the effort anyway. If you answer less than 10 you are still in the tenderfoot class. A score of 15 rates you as a better-than-average student of the desert. Any score over 15 is exceptional. Answers are on page 44.

- 1—In the wildlife of the desert the Roadrunner is—A lizard..... A bird.....
A species of antelope..... A rodent.....
- ✓ 2—The gem stone most commonly used by desert Indians in making jewelry is—
Agate..... Onyx..... Malachite..... Turquoise.....
- 3—Window Rock, Arizona, is on the reservation of the Navajo..... Hopi.....
Papago..... Pima.....
- 4—The community of Chimayo in New Mexico is famous mainly for its—
Pottery..... Weaving..... Ceremonials..... Silverwork.....
- 5—Oliver LaFarge is best known as—A writer..... Indian trader.....
Mining engineer..... Colorado river boatman.....
- 6—The Indian mission at Ganado, Arizona is—Catholic..... Mormon.....
Episcopalian..... Presbyterian.....
- 7—Furnace Creek Inn is located in—Death Valley..... Grand Canyon national
park..... Nevada's Valley of Fire..... Bryce Canyon, Utah.....
- 8—Rampart cave, known as the prehistoric home of the Giant Sloth, is located
in—Arizona..... Nevada..... California..... Utah.....
- 9—The *Balsa* was used by primitive Indians to—Kill game..... Pacify their
gods..... As a shroud for the dead..... Transportation on water.....
- 10—The Enchanted Mesa of New Mexico, according to legend, was occupied
in prehistoric times by the—Zuñi tribesmen..... Acoma..... Apache.....
Penitentes.....
- 11—Azurite is an ore of—Iron..... Aluminum..... Copper..... Zinc.....
- 12—The color of the blossom of Encelia, or Incense bush, is—Pink.....
White..... Yellow..... Lavender.....
- 13—To reach Nevada's Valley of Fire from Las Vegas, your general direction
would be—North..... South..... East..... West.....
- 14—The Inter-Tribal Indian Ceremonial of the desert is staged each August at—
Santa Fe..... Phoenix..... Holbrook..... Gallup.....
- ✓ 15—Palm Springs, California, is located at the base of—San Jacinto peak.....
Mt. Whitney..... San Gorgonio peak..... Telescope peak.....
- ✓ 16—Water taken from the Colorado river to serve Los Angeles is pumped from—
Lake Mead..... Imperial dam reservoir..... Lake Havasu..... Blythe
intake.....
- 17—Pauline Weaver is known in desert history as a—Stage coach driver.....
Conqueror of the Apaches..... Guide for Coronado..... Trapper and moun-
tain man.....
- 18—Meal used by the Hopi and other desert tribes in ceremonials generally is
made from—Corn..... Mesquite beans..... Chia seed..... Piñon nuts.....
- 19—Salt River valley, Arizona, gets its irrigation water mainly from—Elephant
Butte dam..... Boulder dam..... Roosevelt dam..... Coolidge dam.....
- 20—Dick Wick Hall's famous frog that never learned to swim lived at—
Yuma..... Searchlight..... Salome..... Hassayampa.....

time, and I knowed a little spring over the bank about a half mile away so we took the canteens and went over to git some water. When we got back that blankety-blank car wuz gone. Nowhere in sight. But we see'd a trail goin' up the canyon, so

started out. An' jest as we came around a bend near the top o' the grade there was them tortoises plod-din' along with the station wagon on their backs.

"I tell yu them tortoises belongs on the desert, and nowheres else."



Jasper, agate, carnelian and fossil material worn to smooth pebbles by an ancient river, are exposed in this bluff along the Colorado.

We Hunted Desert Gems--in a Boat

By JOHN HILTON
Photographs by Harlow Jones

SOME TIME AGO there was a little argument in Desert's letters department about the term desert rat. As far as I am concerned (and that goes for all my desert friends), it's a name to be proud of. The other day I met a couple of chaps who claim the distinction of being both desert rats and river rats and are proud of their titles. Their names are Tommy Kinder and Fred Doerner. How we made their acquaintance and taught them the rudiments of rock collecting is one of those yarns which could happen nowhere else but in our southwestern desert country.

It was just getting dark when Harlow Jones and I pulled up in front of the general store in Earp, California. I hadn't been along this part of the Colorado river since the Los Angeles aqueduct was under construction. The roads had changed. I didn't know a soul in town. The doors of the store were closed but a light shown inside so we knocked.

While we waited I read a sign on the door stating that they were all out of groceries but still had a few items of general merchandise for sale. Also that the post-office could be reached through the back door. We were expecting most anything when the door swung open—and what we saw was a 30-foot boat nearly completed.

We told the men who greeted us that we were from the Desert magazine. Our welcome was almost overwhelming. Fred Doerner has been a Desert reader for years. He knew little about rocks but said that if they were along the river anywhere, his partner Tommy Kinder would know about them for Tommy has been on the river for years. Fred has spent a great part of his life on the rivers of the world including the Amazon, Yukon, Yang Tze and the Mississippi. He's an international river rat.

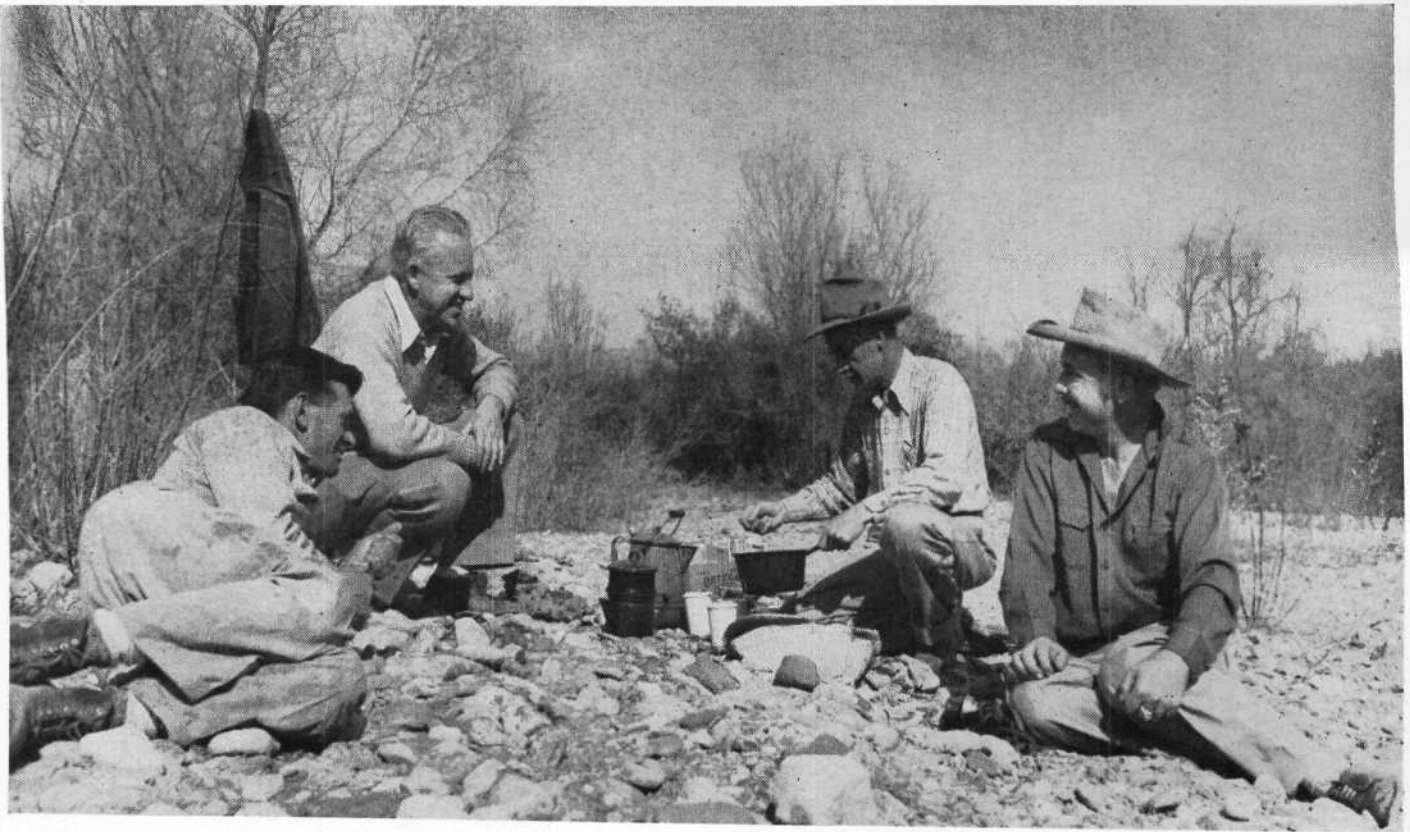
He wanted us to meet his partner, so we went to Tommy's cabin at the boat landing. On the way he told us Kinder had been

The editors of Desert will not vouch for John Hilton's yarn about the alligators in the Colorado—but the pictures and stones he collected on this trip are proof that he found a new field for the rock collectors. The beach stones described in this story may be reached either by boat or on foot—and if you prefer to go there the easy way, there are of couple of river rats at Earp who aren't hard to deal with.

running boats on the Colorado for years. More recently he operated one of the boats chartered by the governor of Arizona to stop operations during the early days of Parker dam construction.

Desert Magazine readers may recall the comic opera situation when the "Arizona Navy" with its two-gun boats steamed up the Colorado river to call the bluff of the United States. Well, Tommy has been called the Admiral of the Navy ever since, although both the *Julia B* and the *Nellie Joe*, having served their purpose, are on the bottom today.

Tommy is a sportsman and was so busy telling about bass fishing, goose hunting and duck shooting, I found it hard to get in a word about rocks. Sure, Tommy knew where there were lots of pretty rocks. He wasn't certain whether they would polish or not but he sometimes picked up a few for his little girl. He and Fred offered to take us down the river the next morning to a beach and an island where there were



The rock hunters beached their boat on a gravel bar for a snack of lunch. Left to right—Tommy Kinder, Harlow Jones, Fred Doerner and John Hilton.

plenty of bright colored stones and to show us a cliff on the Vidal mesa where someone found a mastodon skull years ago.

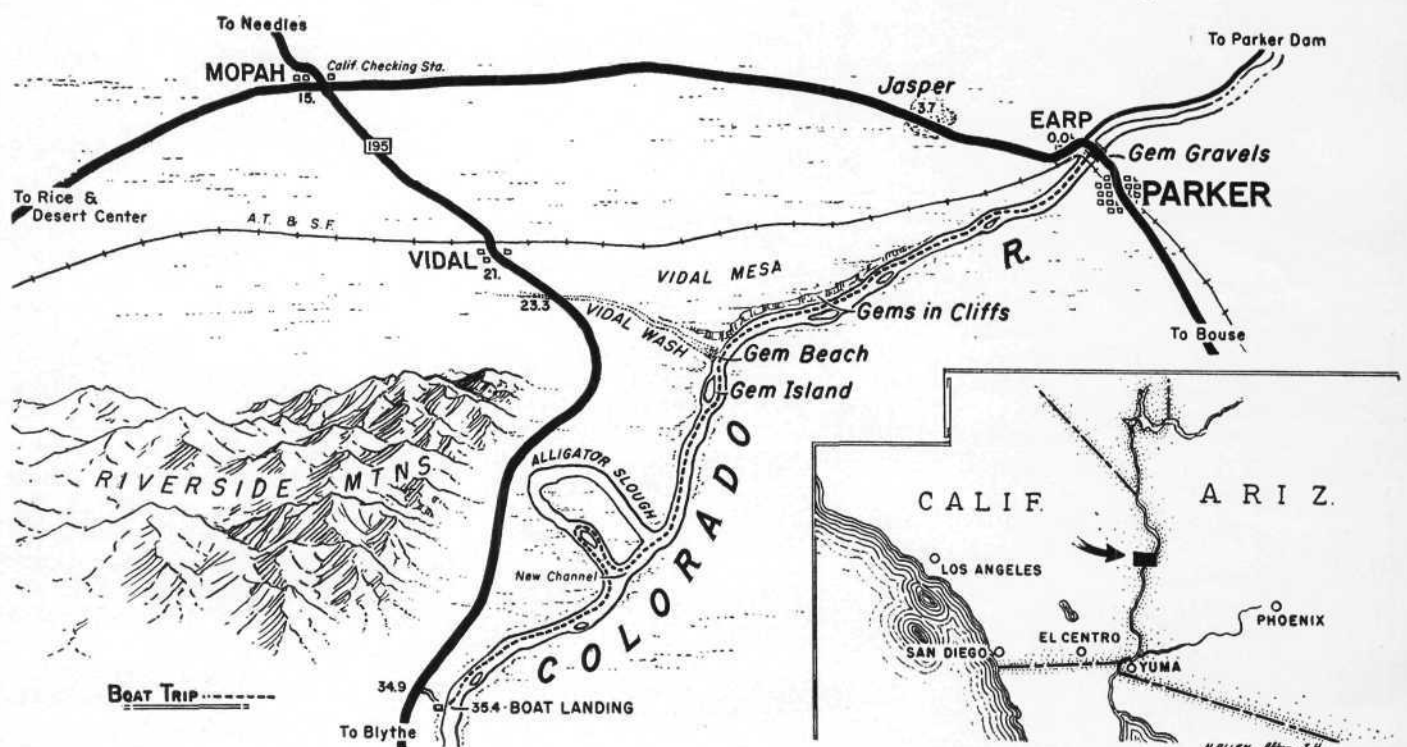
The next morning was calm and sunny with a few wisps of cloud in the sky. As we started down the river and neared the Parker bridge, Tommy pointed out the ribs of a boat sticking out of a mud bank on the Arizona side. "There," he said, "is the

last resting place of the *Nellie Joe* the second best gunboat in the Arizona navy."

Personally, I think Arizona should have maintained its nautical force on the river. An Arizona navy on the Colorado river would add to the pattern of pleasant surprises one learns to look for in this wonder state.

The first time I saw the Colorado river

at this point, before the construction of any of the large dams, there had been a recent flood in the Bill Williams tributary which enters the Colorado just above here. One old timer had snorted, "That durn stuff is too thick to drink and too thin to plow." It was about the color and consistency of thin chicken gravy in a cheap restaurant. Now you can reach overside



and get a good drink of water anywhere along the channel.

It was a pleasant sensation sweeping along with the current—seeming to stand still while the desert hills marched by on parade. Presently we swept around a wide bend and Tommy asked us to sit low in the boat and hold still for there was a flock of Canadian honkers ahead. All I could see were some light specks about a mile away but we obeyed and in a few minutes we came close enough to these handsome geese to get a couple of camera shots. There were other birds as we went along. They would fly up just ahead of us to light again, forming a sort of advance guard.

Finally we found ourselves coasting along some high banks of gravel and clay. I recognized here the old beach line of an ancient river which I described in an early issue of *Desert* under the title of "Beach Combing on the Desert." Now I could see why Tommy had assured us that there were lots of pretty rocks on the beaches. Just as in the deposit near Blythe, these gravels are composed of the harder rocks carried many miles by a turbulent river in ancient times. There is a high percentage of agate,

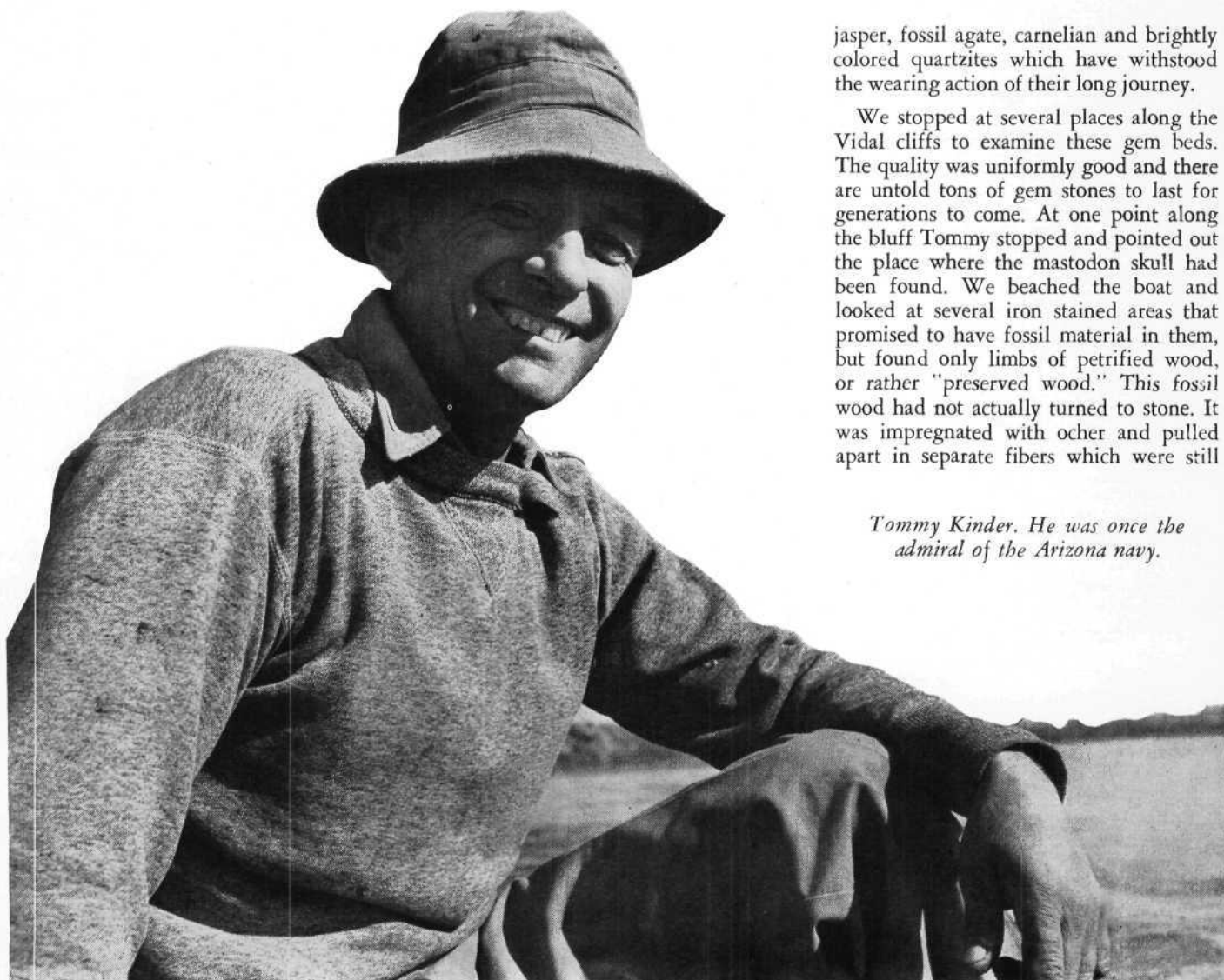


Fred Doerner examines a fragment of chalcedony rose on the beach where Vidal wash empties into the Colorado.

jasper, fossil agate, carnelian and brightly colored quartzites which have withstood the wearing action of their long journey.

We stopped at several places along the Vidal cliffs to examine these gem beds. The quality was uniformly good and there are untold tons of gem stones to last for generations to come. At one point along the bluff Tommy stopped and pointed out the place where the mastodon skull had been found. We beached the boat and looked at several iron stained areas that promised to have fossil material in them, but found only limbs of petrified wood, or rather "preserved wood." This fossil wood had not actually turned to stone. It was impregnated with ocher and pulled apart in separate fibers which were still

Tommy Kinder. He was once the admiral of the Arizona navy.



flexible. Hardly something to interest a gem collector, but certainly an oddity.

A bit farther down we stopped on a gravel bar for lunch. There was an abundance of driftwood along the bar which made an excellent fire for coffee. Most of this drift was beaver sticks. (Pieces of saplings cut by beavers for food.) When these animals have finished eating the green cambium layer from the sticks they turn them loose in convenient firewood lengths. We marveled at the perfect job of cutting on both ends of each stick and the uniformity of length. The beavers do a neat job of cutting firewood for the river rats.

After lunch we continued downstream and watched for some of these animals. Fred and Tommy assured us they were among the largest on record. They stated that it was not uncommon for a beaver in these parts to weigh 45 or 50 pounds. There were plenty of fresh slides wherever mud banks led up to flats or islands covered with small trees. Here and there was a newly cut tree showing as neat a job as man ever executed with an ax. We could see their burrows in the banks. It was not until about dusk that we saw two of them, and one deer.

We stopped again at the point where Vidal wash empties into the river. Here was a veritable gem beach. Jaspers and bright colored agates dotted the gravels along the edge and looked even prettier than usual in the shallow water. We walked up the wash among the smoke trees and found the entire wash was a good collecting area. It not only carries the old water-worn beach pebbles rewashed from the ancient shore line, but agates and chalcedony roses carried by cloudbursts from the desert hills which it drains.

Farther down was an island completely made up of gravel and I am safe in saying that it would be difficult for a person to set foot down on this bar without touching at least one stone that would polish. Of course they are not all the finest grade, but I found a good many that I felt were worth adding to my collection.

By this time Fred and Tommy both were collecting stones and asking questions. They had found a new interest in stones they had been walking over for years. Before we had reached home they were asking about the difficulties of polishing stones and the price of a small cutting outfit. Chalk up a couple more of desert rockhounds!

Finally we coasted into what had been a meander of the river near the base of Riverside mountains. When the river channel straightened, it left a cove of placid backwater. Here, according to Tommy, is the feeding ground of the Colorado river alligators.

The place is known as Alligator slough. Like the camels of Arizona, the alligator stories meet with considerable skepticism.

But Tommy insists they are here, and that he once wrote a story for a sportsmen's magazine about them.

Some say that the saurians were dropped into the river by a traveling circus that went broke at Parker and couldn't feed them. There is another story that the workers at the Needles roundhouse were presented with a batch of baby alligators years ago. They were cute little fellows at first but as they grew they took up too much space and demanded too much food (including a couple of fingers, it is rumored). These, too, were consigned to the river to swim south to the tropics. The fact remains that a good many river men claim to have seen large alligators in this slough.

The sunset behind the Riverside mountains was just turning the silvery Colorado to gold when we came around another curve and saw a campfire on the shore. A car and trailer were waiting for the boat. The trailer was pushed into the water, the boat floated over to it and in no time at all, we were rolling merrily along on the paved highway which leads from Blythe to Parker.

The next morning Harlow and I stopped along the road near Earp and found some

very good red and brown jasper both in place in some low hills and scattered over a wider area. This spot will be worth visiting on a future trip. The old beaches on the mesa between the river and Parker are full of gem stones but they do not show up as colorfully as on "gem beach," and besides there's a fine river trip to consider, with an optional bit of bass fishing on the side. Not to mention the rare privilege of meeting the former admiral of the Arizona navy.

• • •

WOULD RESTOCK DESERT WITH QUAIL, PARTRIDGE

Under a bill introduced in the California legislature by Senator Ralph E. Swing, \$150,000 would be appropriated for the development of existing waterholes on the California desert and for the creation of additional water sources. The water supply plan is part of a general program for restocking the desert with game birds. The bill includes funds for game farms at Banning, Victorville and in Owens valley, where quail and Chukar partridge would be bred for the open ranges. A total of \$800,000 is proposed for game conservation in the state, and \$2,247,500 for fish hatcheries and equipment.

Old-Timers on the Desert . . .

will be the subject of Desert Magazine's photo contest for April. Any "desert character" is a proper subject for this contest—whether white, red, black or brown. Photos may be formal or informal, but preference will be given to pictures of comparatively recent date—within the last two or three years. Name of the subject and the location at which the picture was taken should be given.

Prizes are \$10.00 for first, \$5.00 for second place winners, and \$2.00 will be paid for each non-winning photo accepted for future use in Desert Magazine. Entries must reach the Desert Magazine office by April 20, and the winning pictures will be published in June.

HERE ARE THE RULES

- 1—Prints must be on black and white, 5x7 or larger, printed on glossy paper.
- 2—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 3—Prints will be returned only when return postage is enclosed.
- 4—Contests are open to both amateur and professional photographers. Desert Magazine requires first and full publication rights of prize winning pictures only.
- 5—Time and place of photograph are immaterial except that they must be from the desert Southwest.
- 6—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.
- 7—Each photograph submitted should be fully labeled as to subject, time, place. Also as to technical data: shutter, speed, hour of day, etc.

ADDRESS ALL ENTRIES TO PHOTO EDITOR, DESERT MAGAZINE.

THE *Desert* MAGAZINE
EL CENTRO, CALIFORNIA

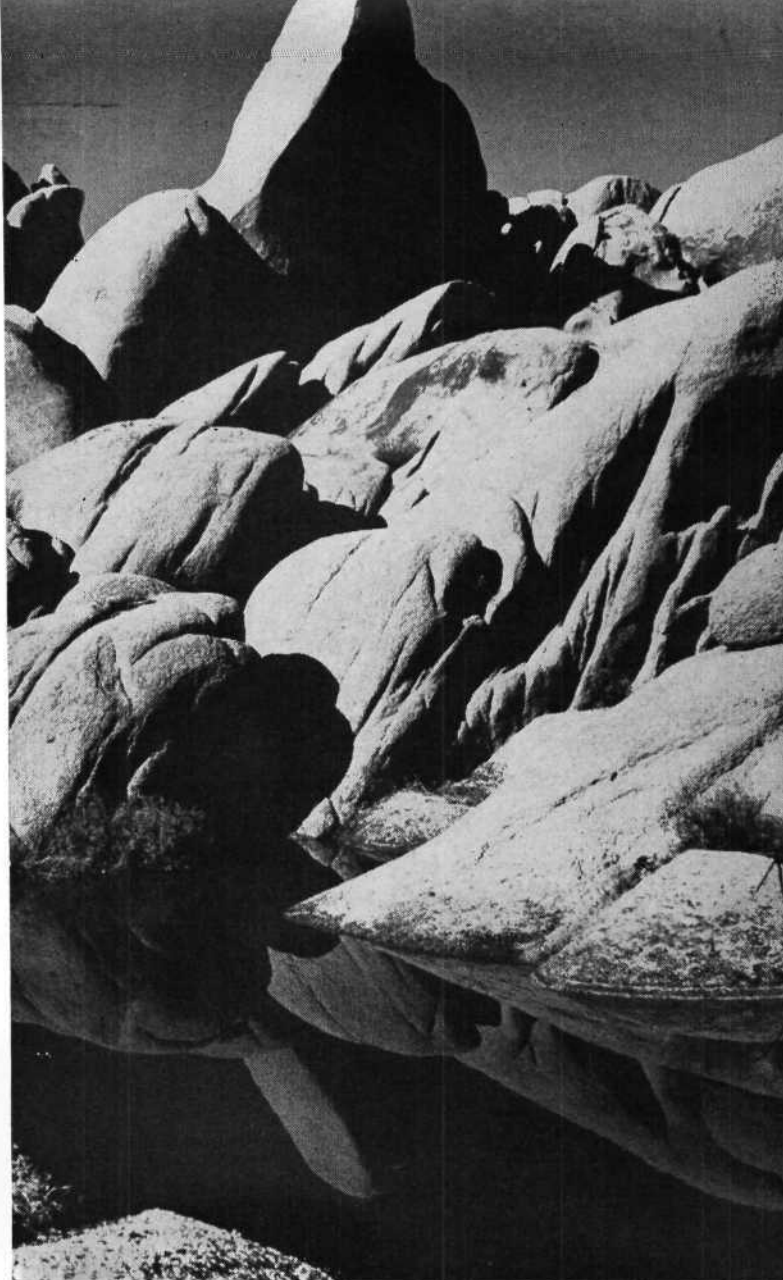
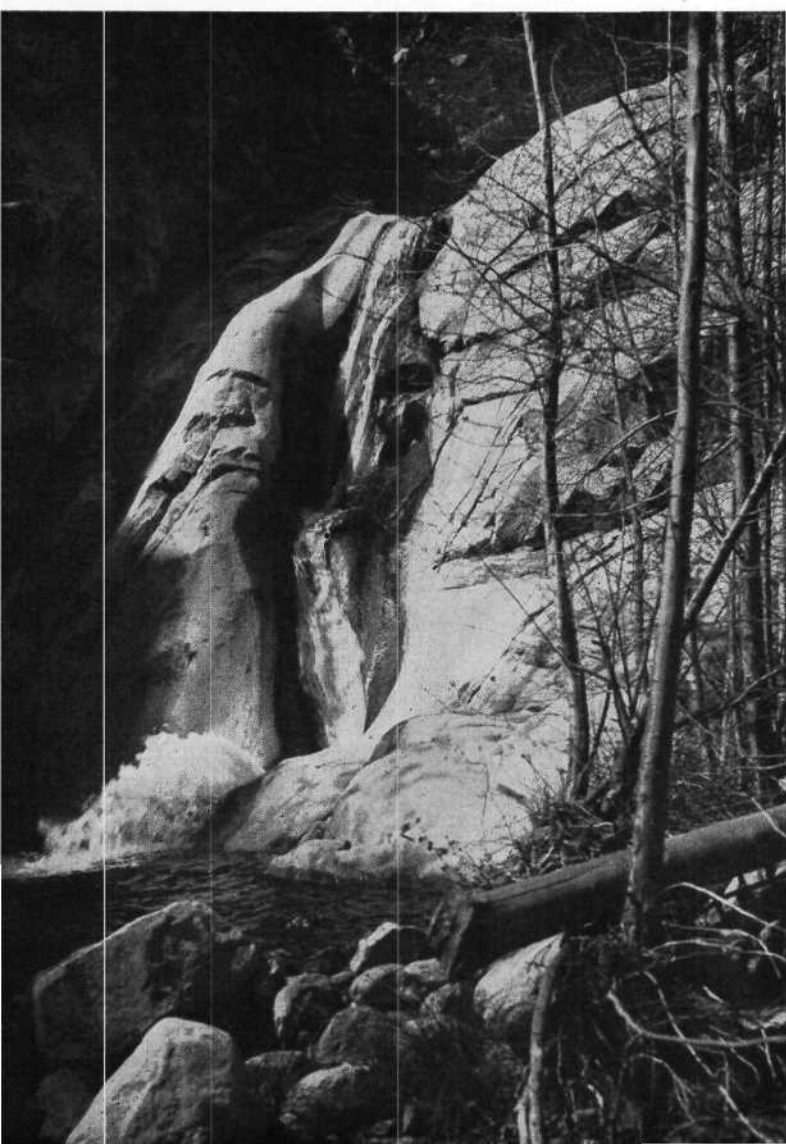
White Tank

Joshua Tree National Monument
Twentynine Palms, California

By L. B. Dixon

In the February photographic contest, featuring Water on the Desert, first prize winner is this view of a natural water tank on the desert, taken by L. B. Dixon, Del Mar, California, with a Leica camera with 50 mm objective, Panatomic X film, developed in DK20. Exposure 1/40 sec. at f12.5, Aero No. 2 filter. Print on F2 Kodabromide.

Photos of merit were purchased for future use in Desert magazine from the following contestants: Laura Adams Armer, Fortuna, California; Will H. Thrall, Alhambra, California; Chet L. Swital, Glendale, California; Hubert A. Lowman, South Gate, California; Dorothy Clayton, Los Angeles; Geo. O. Bonawit, Parker Dam, California.



Waterwheel Falls

Andreas Canyon, California

By Loyd Cooper

Second prize winner in the February contest, by Loyd Cooper, Claremont, California, shows falls in one of the popular canyons in San Jacinto mountain near Palm Springs.

Desert Characters is the subject for the April Contest. Every old-timer on the desert is a possible subject—or the rockhounds and pebble pups or the tenderfoot or prospector. First prize award is \$10; 2nd prize, \$5.00; each non-winning photo accepted for publication, \$2.00. See rules elsewhere in this issue.

Master of Camouflage . . .

By RICHARD L. CASSELL

FEROCEOUS as he appears, the horned toad, or more correctly, lizard, is one of the desert's most harmless denizens. They say his ancestors belonged to the tribe of prehistoric dinosaurs, and he retains many of the characteristics—but if the horned mammoths which once roamed the earth were as defenseless as this diminutive prototype of today, it is no wonder they perished from their world.

The snake and the roadrunner are his natural enemies. His only protection is his speed—and he hasn't as much of that as many of the other lizards—and his camouflage. That is his one saving characteristic. So perfectly does he blend with the sand and gravel of the desert that unless he moves, he is likely to escape detection.

Scientifically, horned lizard is *Phrynosoma platyrhinos*. But most folks prefer

to call him by his common misname, horned toad.

As a pet the horned lizard is a disappointment, demonstrating no traits of affection or even tolerance. But what he lacks in amiability he makes up in being the perfect model. Place him in practically any position and he will hold that given pose seemingly for hours, acquiescing unflinchingly to handling, maintaining a slight change of stance, and holding a certain tilt of the head long for a picture to be taken.

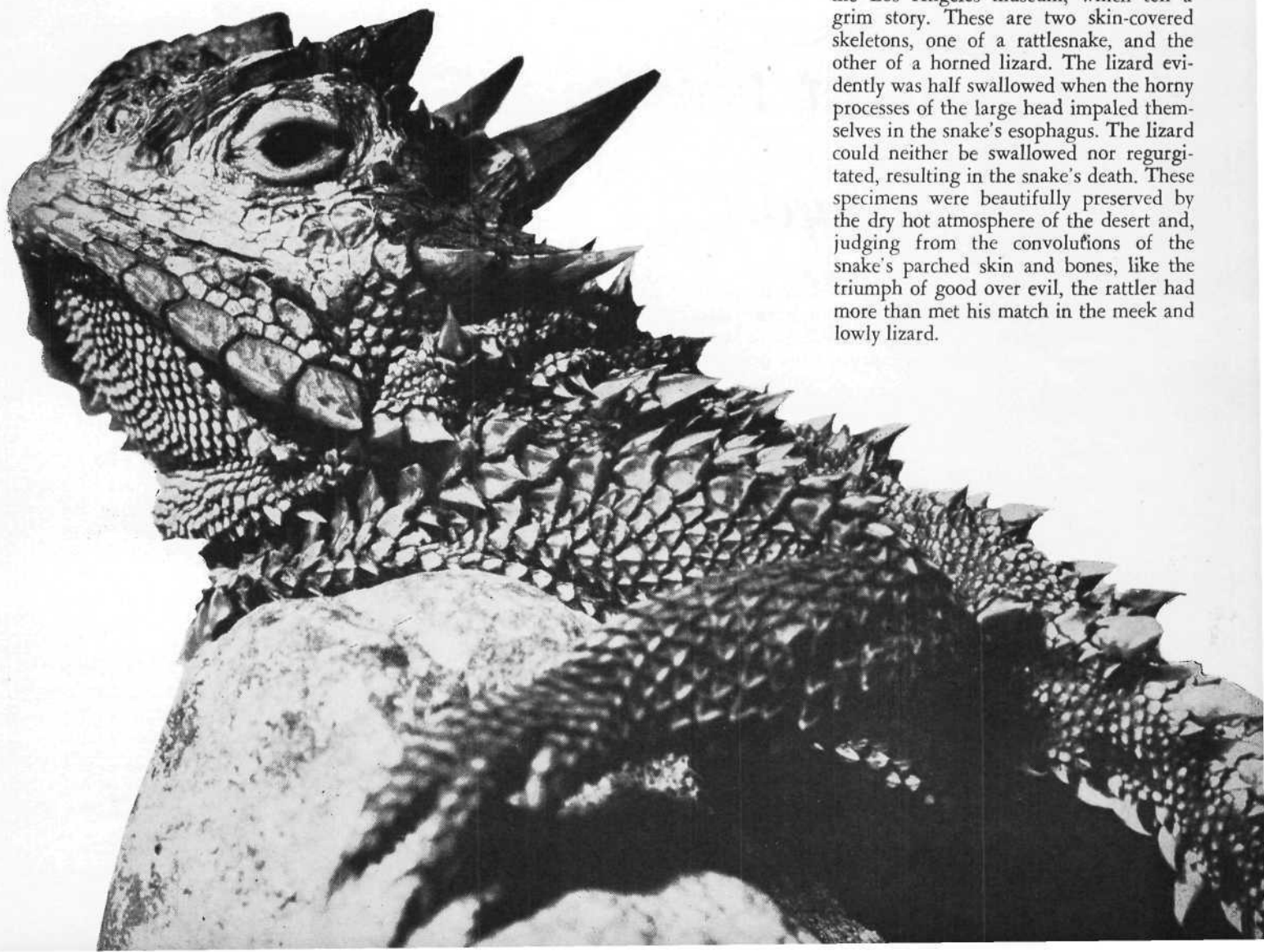
An examination of the animal's body reveals several interesting adaptations to a life in the sands. The ear drum is almost entirely concealed by a scaly membrane and is further protected by deep folds in the rough scale-studded skin. Beneath this tough outer skin are pigment cells motivated by the nervous system either volun-

tarily or autonomically—probably the latter. These pigment cells bring a change of color to the skin when the creature wanders from place to place and the immediate habitat demands a color adjustment. According to some reports, this color change has great latitude, changing from almost white to brick red.

Like the desert tortoise, the horned lizard requires no water as such, but metabolizes what moisture is necessary from the food it eats, consisting of live insects—stinging or otherwise—but mostly ants, beetles and flies.

During the nights and cool days he buries himself in soft sand, using his head plow-like and wriggling beneath the surface, being completely covered in a few minutes. This process is also employed during hibernation which usually begins in November and continues until March.

There are two interesting specimens in the Los Angeles museum, which tell a grim story. These are two skin-covered skeletons, one of a rattlesnake, and the other of a horned lizard. The lizard evidently was half swallowed when the horny processes of the large head impaled themselves in the snake's esophagus. The lizard could neither be swallowed nor regurgitated, resulting in the snake's death. These specimens were beautifully preserved by the dry hot atmosphere of the desert and, judging from the convolutions of the snake's parched skin and bones, like the triumph of good over evil, the rattler had more than met his match in the meek and lowly lizard.





This is the entrance to Cat canyon. It is not practicable to bring a stock model car this far up the arroyo.

Palms That Grow in Cat Canyon

It takes a lot of scrambling over rocks and around waterfalls to view the scenic splendor of Cat canyon—but here, deep in the north slope of Southern California's Santa Rosa mountains is one of the most delightful palm oases in the desert country. In his palm story this month Randall Henderson gives a glimpse of ancient Indian legend that may have a bearing on the status of native palm trees found on the desert today.

By RANDALL HENDERSON

A YEAR AGO I staked out one of Uncle Sam's 5-acre homestead tracts in a certain Section 36 in Riverside county, California. My real estate, for which I pay \$5.00 annual rental to the United States treasurer—and hope some day to build a cabin and get a deed to the property—is somewhat rocky. In fact there isn't much else.

But after all, you cannot expect too much for five dollars these days, and I knew what I was getting when I signed the papers. I had climbed most of the rocks on my jackrabbit homestead—and even some

of my neighbors' rocks—and I found two or three places where there was soil enough to grow a beavertail cactus. Beavertail doesn't take much soil, you know.

There are 128 of these 5-acre claims in Section 36, and I am told that most of them have been leased under the 5-acre homestead law.

Not all the land in Section 36 is rocks. There's a wide sandy wash across the middle of the section. Applicants who scorned the idea of a cabin perched up among the rocks, had the option of staking a claim down in the arroyo among the smoke trees

and greasewood. The main difference between a cabin up in the rocks and one down in the wash is that it is necessary to anchor a house on the hill with a strong cable to keep the wind from blowing it away, while down in the flat it is advisable to put out a good anchor against that day when a storm flood may come down the dry creek bed.

But do not get me wrong. I am not trying to discredit Uncle Sam's real estate business. I think the 5-acre homestead act is a fine law. Those little homesteads are designed merely for persons who can afford a \$300 cabin out in the sand and sunshine where they may spend their weekends and vacations, or perhaps go for a little refresher course in the art of being free and happy. Folks who haven't allowed their sense of values to become all snarled up by too much civilization will have more fun building and vacationing in a little shack among those rocks than they would in a \$25,000 glamour-house in nearby Palm Springs.

And now that I have presented the merits and demerits of a homestead in Section 36, I will go on with my story, which is mainly about that wash which runs across the middle of the section.

It is called Cat creek. I don't know the origin of the name, but I am sure it derives from some species of wildcat rather than the domestic variety. For Cat canyon is a rugged bit of terrain and there is no evidence that any white man has ever built

a shelter within its rocky walls above the point where it spreads out over the desert floor in Section 36.

My first visit to Cat creek was in 1937. I had gone up Ramon creek, the next canyon to the north, exploring for native palm trees. There were none in Ramon, so I crossed over the ridge and down into Cat, and discovered a fine stream of water and some full-skirted palms of the *Washingtonia filifera* species. I counted 195 palms on my way down the canyon. I planned to return at a later time to explore the upper canyon. There might be more palms above.

The long-delayed return visit to Cat creek was in February this year. Wilson McKenney, who was my associate in the launching of Desert Magazine in 1937, and who now publishes a newspaper at Yucaipa, California, invited me to camp with a troop of 19 Yucaipa boy scouts who were spending a weekend in that area. Scoutmaster of the troop is Howard Barnett, and a fourth adult in our party was Louis Harrison, Los Angeles book and magazine dealer.

We camped Saturday night not far from

the Pines-to-Palms road on lower Dead Indian creek. It was a perfect camp spot—a sandy floor where smoke trees and cacti grow luxuriantly in a sheltered cove. There was plenty of dead wood in the arroyo, and after dinner we gathered around a huge campfire and conducted the scout ritual for six boys who had qualified for their tenderfoot awards.

Later in the evening the lads hiked off into the hills with a lantern for a snipe hunt, arranged for three of the boys who had not yet been initiated into the mysterious art of enticing desert snipe into a gunny sack. By ten o'clock the scouts were back in camp with empty sacks, and three disillusioned youngsters.

Next morning we hiked a mile cross country and then dropped down over a bluff to the sandy floor of lower Cat creek. There were car tracks to the mouth of the canyon—but it is a very sandy trail, not to be attempted by a heavy car, or by a paved-road driver.

A few hundred yards up the arroyo the mountains closed in on both sides and the wadi became a canyon. Within a quarter

of a mile we came to water. It comes down from springs high up in the Santa Rosa mountains. There was no foot trail, and the only evidence of previous visitors was a small pipe line one of the jackrabbit homesteaders had installed to carry water down to a rock cabin he was building.

We saw the first palms soon after we reached the water. There were not many, just an occasional straggler, and all of them young trees. Then the grade of the canyon became steep and rocky. Tiny waterfalls tumbled over 10 and 12-foot boulders, and in some places we found it necessary to detour up on the sidehill to get around unclimbable faces.

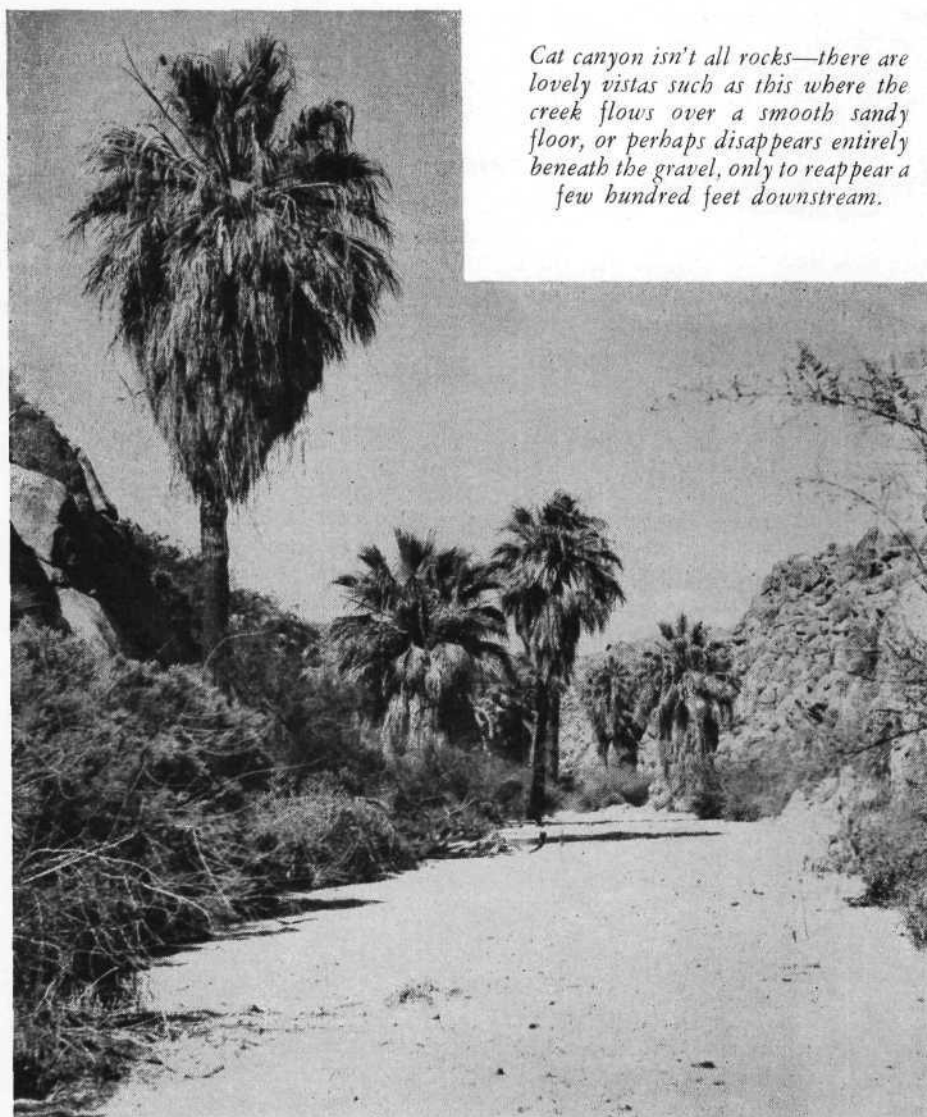
At one place a half dozen aged palm trunks were piled in a log jam against a boulder as big as a house. It was evident there had been more mature trees in the canyon above than we had encountered in the lower gorge.

It was a grand field day for the scouts. They scrambled up and over the rocks like mountain goats. But their time was limited, and at noon when we were two miles up the canyon, they had to turn back to make the return trip home before dark. Louis Harrison and I continued up the gorge. Just above that point a tributary came in from the south, and we divided forces, Louis taking the assignment of counting the palms in the side canyon.

I continued up the main watercourse another mile, meeting increasing numbers of aged palms that had survived the cloud-burst torrents of perhaps 150 years or more. Their dead fronds had been burned from the older trees, probably before white men ever saw this canyon. Their trunks were scarred and weathered. But they still carried a thatch of green fronds at their tops. Fire seldom kills the *Washingtonia*. Unlike many other trees, the water system of the palm is in its heart, not the bark, and as long as the porous inner trunk is intact the tree will grow and thrive.

The fires which burned these veteran trees are of two possible origins. Some undoubtedly were caused by lightning. Indians probably were responsible for others. Cat creek is in Indian country—the ancient home of the Cahuilla. It is said, although I have never been able to confirm this, that the old Indians held a belief that evil spirits dwelt in the long skirt of dead fronds which clings to every mature tree until burned off, or is weathered away. It is easy for me to credit this legend. I have spent many nights sleeping on the ground in the palm oases, and often have been awakened by an unnatural rustling of the dry leaves. Birds and bats sometimes live among the fronds, and lizards scamper up among them in quest of insects. When a breeze is blowing the faint whisper of dry frond against dry frond is soothing music, like the murmur of a creek among the rocks. There is no confusing that lullaby with the crackle of dry leaves when a bat dashes out

Cat canyon isn't all rocks—there are lovely vistas such as this where the creek flows over a smooth sandy floor, or perhaps disappears entirely beneath the gravel, only to reappear a few hundred feet downstream.





These are the scouts and their leaders who accompanied the author on his exploring trip into rugged Cat canyon.

of the dead foliage for his evening foraging expedition. Yes, some of those fires may have been started by superstitious Indians.

Another theory to explain those prehistoric fires is that Indians burned the fronds to increase their food supply. Every student of the palm knows that following a fire the tree grows an extra heavy crop of seed. Nature always reacts to perpetuate its species. This phenomenon was especially noticeable a few years ago following the disastrous fire which swept lower Palm canyon near Palm Springs. Washingtonia palm seed, with its thin

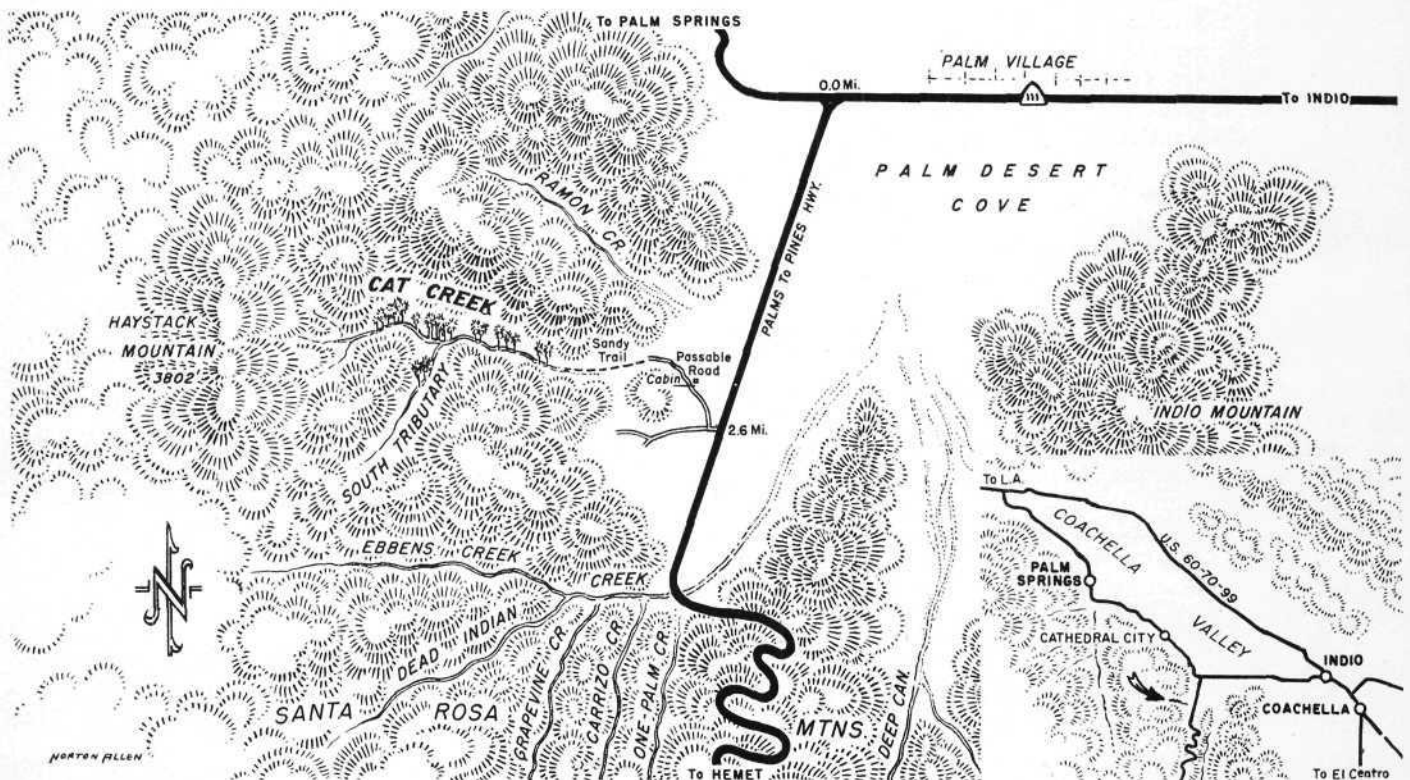
sugary husk was an important item of food among the old Cahuilla.

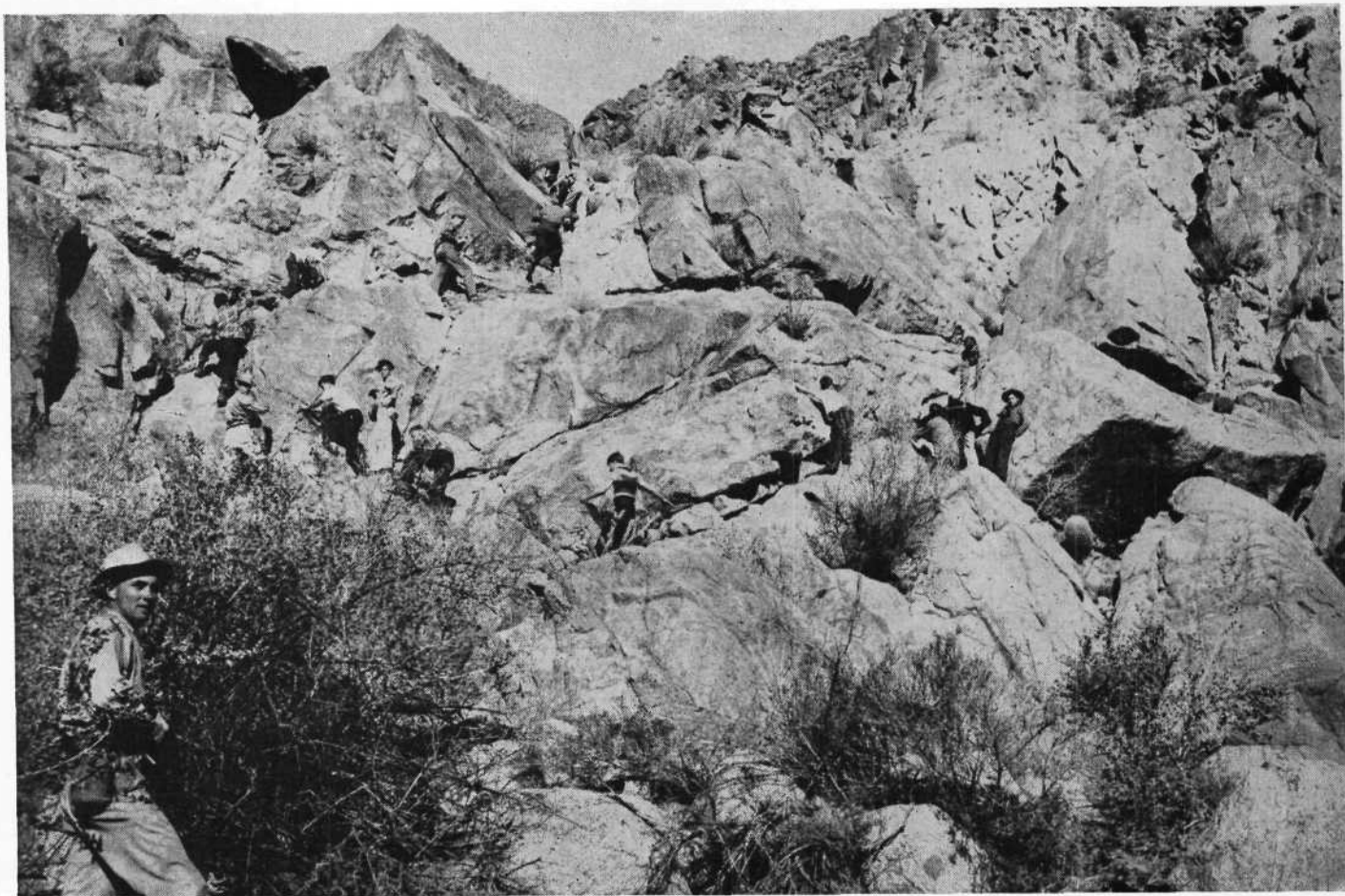
The canyon grade was rising steadily, and as I neared the upper end I climbed a side hill occasionally to see if there were more palms around the next bend. And there were—until finally when I reached a point just below where Cat canyon breaks up into numerous small channels that disappear up on the side of Haystack mountain, I came upon one of the most gorgeous groups of native palms I have ever found in any canyon.

I counted 78 trees in this cluster—but I am not sure of that figure, for counting

palm trees when they grow in such a miniature jungle as I found here, is not as simple as you might imagine. The number is not important. The beauty of this spot will remain in my memory long after the figures are forgotten.

There were palms of all ages and all mixed up. There were bare trunks bearing the char of long-ago fires close beside great full-skirted giants, and young palms among them crowding out toward the sunlight. I found here not the slightest evidence of any previous visitor, although these palms, deep in the northern slope of





When waterfalls and vertical rock faces blocked the way the exploring party detoured up over the rocky walls on the side of the canyon.

the Santa Rosa mountains have been discovered many times before.

This majestic oasis marked the uppermost habitat of the palm in this canyon. It truly can be said of Cat creek—the higher up you go the more entrancing becomes the scenery.

I continued a half mile beyond the group I have just described and then climbed a ridge where I could look down into the various branches of the upper canyon. Just as I was starting the ascent I saw a picture that was reward enough for six hours of strenuous hiking over the boulders.

Silhouetted on the ridge above and beyond was a mountain sheep—a great ram with his head so turned that the span and curve of his horns were sharp against the sky. He was nearly a quarter of a mile away, watching me. We gazed at each other for a few minutes and then he dropped from sight on the other side of the ridge, and the mate I had not previously seen followed him. These rare animals were too far away for a picture, without a telephoto lens. Perhaps I'll meet them again, for there are many trips yet to be made into the Santa Rosas. It is a magnificent range of mountains.

We counted 424 palms on this trip, 29

of them being in the south tributary. There is no trail in Cat canyon—one just follows the stream and goes where the rocks are least formidable. The elevation at the mouth of the canyon is 800 feet, and at the uppermost palms 2300 feet.

A few cottonwoods grow along the creek, and at the upper levels the air was scented with wild apricot in blossom. Bees were swarming over the trees getting a rich harvest of honey. Wild apricot's claim to distinction is due to its flower, not its fruit. The tree puts on a gorgeous display of white blossom with an occasional tint of pink, and then produces a bitter little nubbin of fruit that never seems to get ripe. I have been told the Indians ate them, but I have never tasted a wild apricot that did not pucker my mouth.

February was too early for the spring flower display, but I found encelia and the hardy chuparosa in bloom. The flower buds of bisnaga cactus were swelling, but I saw not a blossom.

The sun was down by the time we reached the floor of the desert again. As I tramped across Section 36 on my way out of the canyon, I wondered what the new owners of the 5-acre jackrabbit homesteads, many of whom signed up for their claims without seeing them, thought of

their desert real estate when they came out for a first inspection. It is rough country—a land that can be appreciated only by those with a bit of romance inside them.

If any of those cabinsite owners by chance should read this story, they will at least know that gorgeous Cat creek is in their backyard—and that they are not far from a delightful palm garden retreat if the winds and the floods become too rugged for comfort in Section 36.

• • •

DAVIS CITY BEING LAID OUT AT NEW DAMSITE

Davis City, new town being laid out by Reclamation service engineers near the site of proposed new Davis dam in the Colorado river between Needles and Boulder dam, is teeming with activity as the Utah Construction company prepares to start work on the \$77,000,000 project. The townsite is on the Arizona side of the river, two miles downstream from the dam location. The contractor's work camp is to be on the Nevada side of the river, with housing for 2,000 men and their families.

Negotiations are underway with the General Electric company to supply five 45,000-kilowatt generators to be installed in the power house.

During the years the Souths have lived on Ghost Mountain, overlooking the Colorado desert of Southern California, they have found many Indian relics, including pottery. But whole pots have been rare, so Marshal has developed innovations for piecing together the broken fragments, which are more frequent. This month he describes some of the methods used for restoring pottery.

Desert Refuge

By MARSHAL SOUTH

THE DESERT wind that came drifting down from the summit of Ghost Mountain had the fresh, tangy scent of junipers in it, and the spice of creosotes and of sage. There is nothing stronger than a familiar fragrance to rouse trooping ghosts of memory and we who were wandering near our old haunts, stopped as we emerged from a thicket of mesquites and lifted our faces to the wind, sniffing eagerly.

Then we saw them—Rhett and Scarlet, our two faithful burros, who, by every right and circumstance should have been miles and miles away, safe behind cattle-guards and barbed wire, in the pastures of those friends of ours who have given them a good home ever since we came back from Utah. What were they doing here?

The moment they sighted them, the children led a headlong race in their direction. "Rhett an' Scarlet!" Rudyard shouted excitedly. "Whett an' Scarwett!" Victoria shrielled. With Rider well in the lead the trio went racing out across the herbage-yellowed surface of the dry lake toward the lone mesquite tree, beneath which our two old-time trail companions stood placidly watching us.

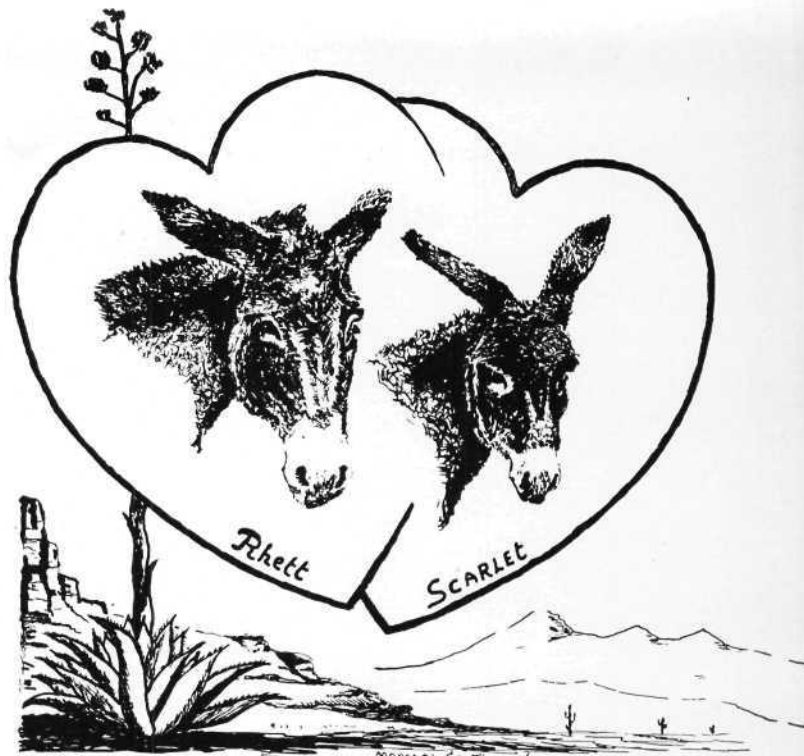
It was a touching reunion, with much hugging and patting and endearing words on the one hand—and nuzzling and snuffing and twitching of long ears on the other. They very obviously remembered us and were as glad at the meeting as we. Gracefully, and with all the old-time satisfaction, both Rhett and Scarlett accepted bits of tortilla and munched them contentedly, while the wind stirred the thin, winter-yellowed dry grass and the swaying branches of the mesquite tree sifted a pattern of sunlight and shadow over their dark, shaggy hides. A road-runner, in pursuit of a bug, skittered across the flat, and to the east the rim-rocks of Ghost Mountain thrust harsh against the sky. It was like old times.

Rhett and Scarlet are growing old. Rhett's dark shoulders are more heavily frosted with silver; his grizzled head lifts a bit more wearily in greeting. Much of Scarlet's self-importance has ebbed away, and she stumbles more as she moves about.

There was a lump in our throats when we said farewell to our two old friends and left them there in the silence of the desert, standing together in the thin shadows of the mesquite tree. There was nothing we could do for them. They know the desert and the trails, the waterholes and the gaps in the fences, better than we do. They are desert-wise. And while strength lasts they can fend for themselves. From the summit of a rise we waved them a distant good-bye. Then the tops of the creosote bushes closed in, and they were gone.

It took us a long while to quite recover our spirits. For in Rhett and Scarlet—their wanderings, the mystery of their origin and in their unshakable devotion to each other—there is something singularly touching. They are of the desert, freedom is in their blood and they will be no man's slaves. When they tire of work or of confining pastures they will pick up and leave.

Out of the mystery of the desert they came one day to Paul Wilhelm at his Thousand Palms oasis. They adopted him and



*Rhett and Scarlet, the devoted pair of burros, unexpectedly re-entered the life of the South family.
Drawing by the author.*

used his place as a base from which to take long and short excursions into the wilderness. Sometimes they would be gone for three or four weeks. Then they would nonchalantly show up again and rest around for a while in the shadows of the palms before starting on another excursion. When we decided to try out burros on Ghost Mountain, Paul, who expected shortly to go in the army, got in touch with me and I trekked Rhett and Scarlet through the 120 mile trip down into the Ghost Mountain territory.

Some time later, when we left on our long search for a possible new Yaquitepec—one with a water spring—Rhett and Scarlet were taken to the ranch of a friend, there to await the success or failure of our exploring journey.

But they did not "stay put." They used their vacation to get thoroughly familiar with the surrounding territory. This done, they made themselves at home in it. Thenceforth they possessed the land. They knew its waterholes and its trails and secret retreats. They have wandered at will over it ever since.

Undoubtedly they are happy. And they are always together. Theirs is a great love story, a burroland epic of constancy and devotion. Out of the desert they came—together. And into the dust of the desert they will in all probability vanish together.

A correspondent who recently has realized a long-held ambition to own a desert homesite, sends me an entertaining description of her efforts to restore a badly shattered Indian olla, found on one of her exploring trips.

The "resurrection" of this particular pot—one of several whose fragments were found jumbled together—is a record of patience and of genuine desert understanding which it does one good to read. For it takes real love and interest to bring back to life, fragment by fragment, the shape that the dusky potter created in the dim, unrecorded past. Having done a little of such work myself I can testify that there is infinitely more of a thrill to it than to the piecing together of any "picture puzzle." And it takes much more skill and patience. Always there will be those heartrending gaps—the bare spots in the pieced together structure for which the fragments simply can not be found.

But it is just those difficulties that challenge the determination of the re-builder. In this case my correspondent actually went out in the desert and obtained raw clay, of similar texture to the pot upon which she was working, and from this shaped new pieces to fill the gaps in the old olla. These new sections she baked in her home fireplace, then fitted and cemented them into

position. I think this is a faithful thoroughness that calls for high praise.

Ollas—genuine and complete ones—are becoming harder and harder to find. About the only way left to get one is to follow the trouble-beset path of carefully collecting the fragments of smashed ones and sticking them together. Nor, I assure you, is there any sense of owning something inferior when you exhibit a "stuck-up" pot. On the contrary it somehow seems much more valuable than an uncracked one. For memory of the toil—and the thrill—of fitting a heap of bewildering clay sherds together until they finally emerge as a graceful pot always will remain in the mind. Somehow it seems to enhance the value of the relic enormously. At one time it was somewhat of a problem to get a good tough cement with which to stick the bits together. But there are now on the market excellent cements, so the novice who embarks on the fascinating job of pot restoring need have no worries on the adhesive score.

All in all I can recommend the careful collection and re-assembling of Indian potsherds to anyone who is in search of a new hobby. Experiments soon will provide knowledge and skill. There are, for instance, several ways of filling in the gaps caused by missing pieces, which, though not as genuine and correct as actually shaping and baking new clay sections, nevertheless serve very well and are simpler to accomplish. One of these methods is to stick a cardboard or stout paper backing behind the hole, on the inside of the pot. Then the vacant space is carefully filled in with plaster of paris, which when it sets is artistically scraped and sandpapered down to exactly conform to the contour of the pot. After this, by the application of the right shade of a bit of oil color, carefully rubbed in by the tip of the finger, a very presentable repair can be made. A little portland cement, mixed with a small quantity of fine sand, will work as

well as the plaster of paris and may be tinted in the same way. Often it is a good idea to give the entire pot, when restored, a color rub of suitable thin flat tint. Only experiment and the consideration of the needs of each particular piece can provide the key to success.

New buds and blooms are opening everywhere as the desert moves forward into another spring. The blazing fires of the chill evenings grow less and less necessary and the stove has lost much of its attraction. The chessboard, however, still retains its popularity. The game has found favor with the youngsters and they spend much of their leisure in thoughtfully moving Pawns and Knights and Bishops into strategic positions and gleefully crying "check!" whenever they have the enemy King bottled up. Through the long winter evenings and on the stormy days when rain and howling gales kept them all confined to the house our young trio developed considerable aptitude as chess players. Especially Victoria, our five-year-old. She has taken to the game like a duck to water and asks no odds from anyone. Wrinkling her little nose thoughtfully over every move she wages a skillful, strategic battle and usually comes out winner, both with her brothers and the grown-ups.

An ancient game, chess. But then, everything in the world is "ancient"—or "new"; whichever term you prefer to use. For, actually, there is nothing that is either new or old. All the ingredients which are juggled together in this whirling sphere that is our home have, as far as we are concerned, always been. They do not change. But successive individuals, races and civilizations, get a thrill out of re-assembling the parts of the fundamental jig-saw puzzle in patterns which they believe are "new."

Nature is expert in hiding "yesterday" beneath "today." Not far from where we have our present abode there are ancient stone houses. No, not Indian houses—pioneer houses. They are roofless. The walls are very thick. Built by infinite labor from rough rocks, fitted together dry, without mud or mortar. Heavy bushes grow now inside the spaces that once were rooms. And the dust and sand have silted up into great mounds that cover deep all traces of human occupancy. Who built those houses? As it happens, from inquiry among old timers, I think I know. But it is a story that is already becoming dim. And the period, from the time those houses were lived in to the present, does not span much more than 70 years. What would you expect, then, in seven hundred years? Or seven thousand?

When we first came out to the wilderness of Ghost Mountain we used to pass, on a section of desert trail that was close to the highway, a neat little wooden house. It was empty, and had been so for some time. We remember it because, once, having had occasion to visit it, we were able to release a desert sparrow which had become trapped in the abandoned garage.

Just a few years ago—five or six—that little house was pulled down and carted away. And we marvel now, each time we pass the spot. For the desert has blotted every sign of where it once stood. Of all that cozy little home, which once throbbed with human hopes and fears and joys, nothing now remains save a vivid picture in our own minds—a memory of dusty sunlight and the flutterings of a tiny bird. The desert has blotted it and it has gone. You would cheerfully testify that no house ever had stood there since the beginning of the world.

THROUGH INTEGRITY

*No man can well afford to shirk
His duty. Life is just.
If he attends unto his work,
And cleaves unto his trust
In God and Good and Higher Power,
He will become more wise.
Through our integrity each hour
We rise!*

—Tanya South



Capture the Rainbow

IN 1946

... take the thrilling trip on mule back down Rainbow Trail 'mid colorful scenes so vivid no artist could portray ... to the most spectacular of all national monuments ... RAINBOW BRIDGE. Rest at picturesque RAINBOW LODGE, backed by the breathtaking span of Navajo Mountain ... where comfortable lodging, excellent food and hospitality are, as before, directed by Bill and Mrs. Wilson.

WRITE BILL WILSON, TONALEA, ARIZONA, FOR RATES AND A BROCHURE DESCRIBING "THE RAINBOW."

In 1863, Kit Carson, in command of 800 New Mexican volunteers, was sent out to round up all Navajo tribesmen, in an effort to end their depredations on surrounding tribes and white settlers. Carson did his job thoroughly. The Indians were marched 800 miles from Canyon de Chelly to Fort Sumner where they remained in internment four years, until the treaty of 1868 was signed. Historians have written many versions of that episode in the warfare between Indians and whites, but here is the story as told by one of the few survivors of that long march.

Long Walk of Very Slim Man

By RICHARD VAN VALKENBURGH

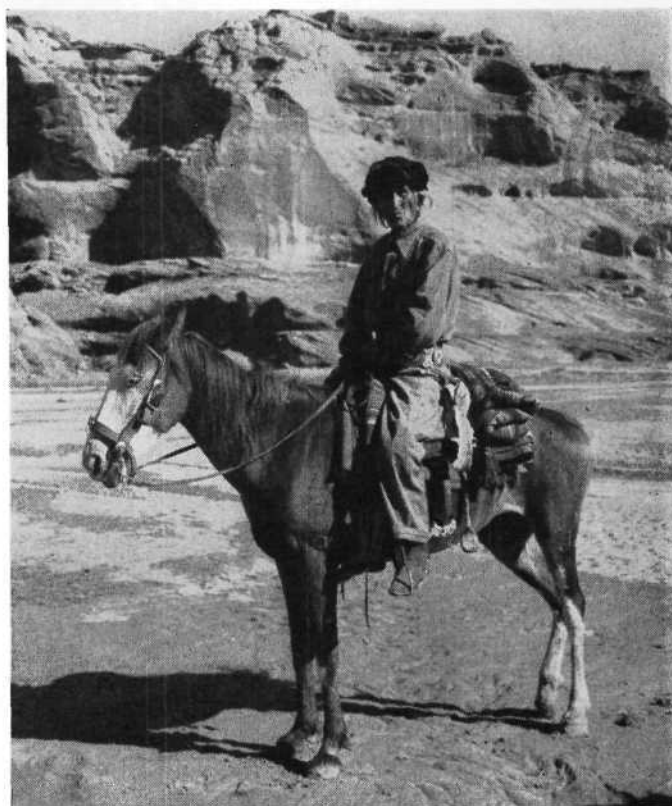
SQUATTING across from me in the fire-glow flickering on the walls of his hogan beside the Chinlé wash in northern Arizona, old *Hastin Ilts' osigi*, the Very Slim Man, took a long time to answer my hint that we trade for the tiny buckskin pouch that lay on the floor between us.

Finally, bending forward to pick up the bag and look at me through his dimming eyes set in a deep-lined face he answered, "No trade, my friend. But as we have been friends for a long time I will tell you why I cannot let it leave my possession."

"I was born 86 summers ago in the Time of the Small Corn. Our camp was at *Tsé lakai des ab'i*, Horizontal White Point, midway between Chinlé and Nazlini. That was the year when the White soldiers built the fort at *Tsébootso*, the Meadow in the Rocks, which they now call Fort Defiance."

By white man's reckoning Very Slim Man had been born in 1851. For it was in that year that Colonel Edwin V. Sumner began the construction of the sod and stone fort at the mouth of Cañon Bonito. Fort Defiance was the first American military post in what is now the state of Arizona.

"When I was big enough to start going with the sheep my mother called me to her side as she said, 'My son, I have something for you.' And then she handed me this tiny medicine bag.



Hastin Ilts' osigi, the Very Slim Man, survivor of the Long Walk. He died in 1939. Photo by Frasher.

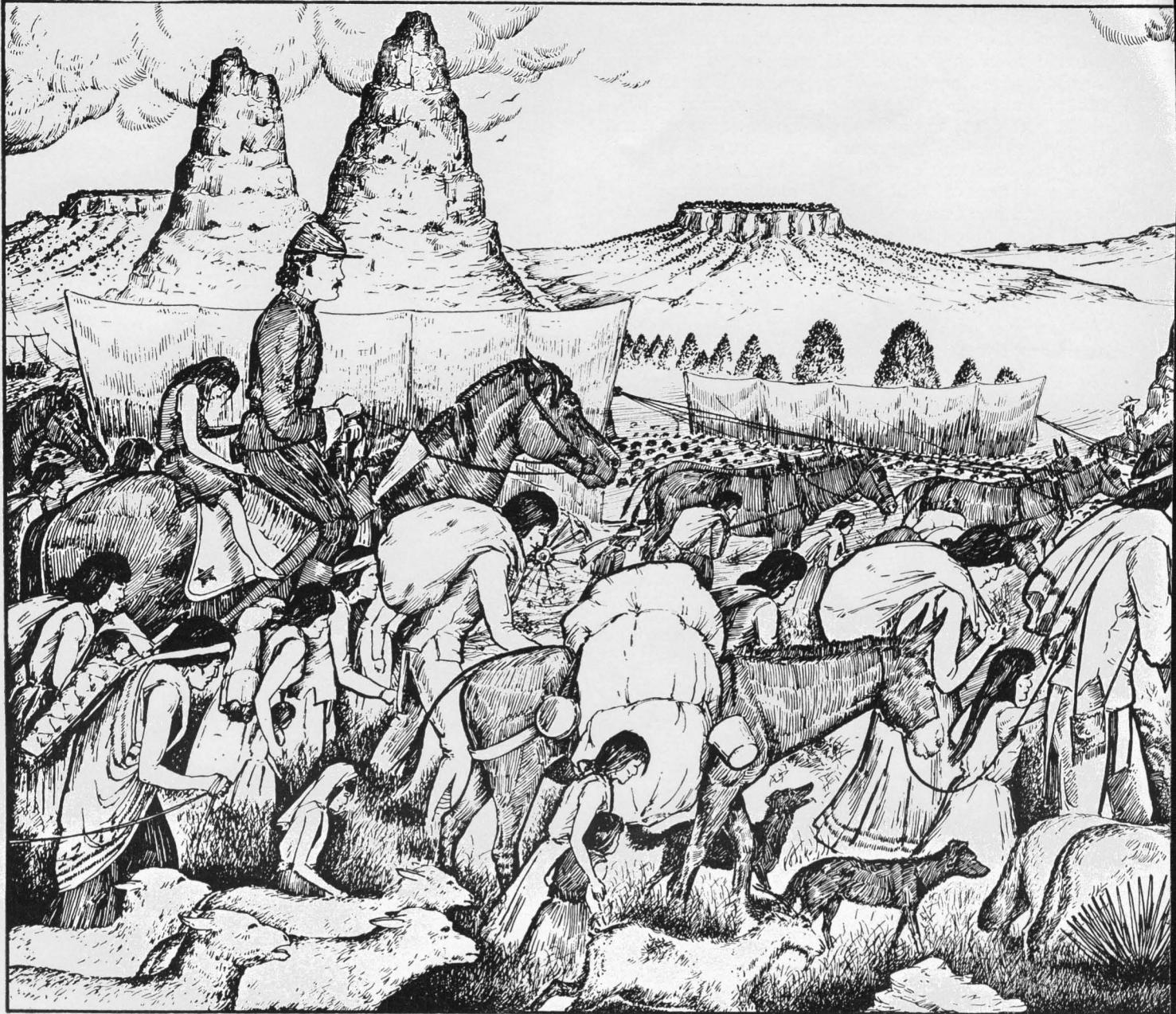
It had been made by *Babazhun*, the Good One, who was our greatest medicine man.

"Then motioning for me to come closer she whispered, 'Inside is powerful medicine. And the mouth is sealed with a good luck turquoise. But there is more than that. When great danger faces you have this bag on your person as you repeat this prayer:

*And'ii
Enemies of all kinds
Begone
For with me
I carry the talisman
Of the Twin War Gods!*

"When I was big enough to think about killing a Mexican, bad news came to the People. From his hogans in the Canyon de Chelly our head chief, Barboncito, sent messengers to warn all





the Navajo. The Mexicans and Utes were guiding the white soldiers into Navajoland."

Apparently this was in the fall of 1863 when Very Slim Man was 12 years old. For at that time General James Carleton of California Column renown had started what he called the reduction of the Navajo. Some 800 New Mexico volunteers under the command of Kit Carson were moving into the Navajo country from the Rio Grande.

"One morning while I was taking my 'run' on the mesa top and shaking off the freshly fallen snow from the juniper branches on my bare body I spied something moving on the rim across the valley. Looking closer I saw that it was a long line of men and horses traveling northward.

"Running back to camp I called my father. We went into the rocks to see better. After a while he said, 'Tis as Barboncito said, the white soldiers are after the Navajo. Hurry! We must break camp and run away to our hiding place in the Canyon de Chelly!'

"Before the sun had gone down five-fingers-above-the-horizon we had broken camp. Traveling through the sunset into the night we went toward the Canyon de Chelly. We came to an opening in the forest. Down in the valley ragged red streaks

Charles Keetsie Shirley, Navajo Indian, drew the Rio Grande Canyon

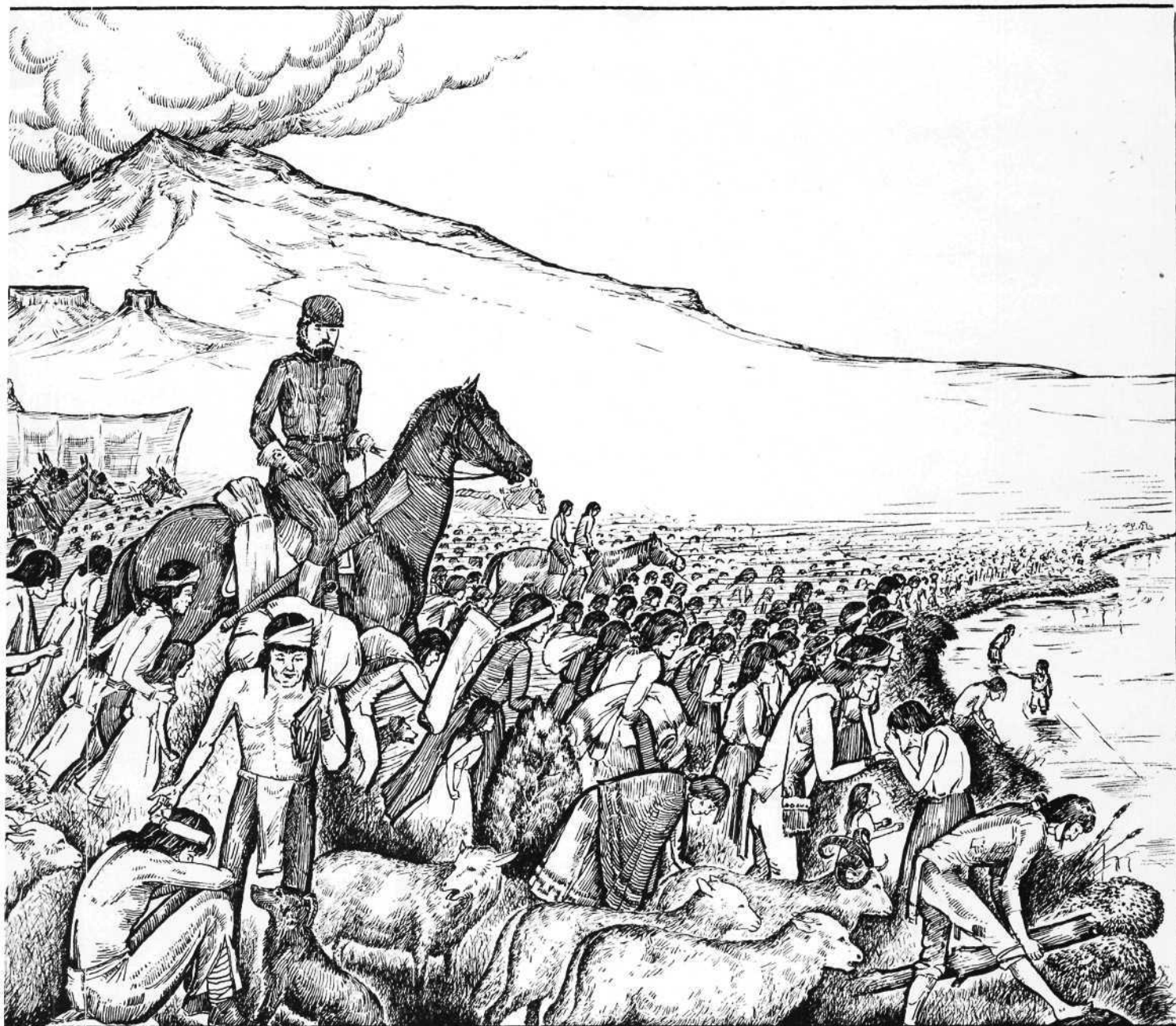
winked at us from the pitch-black of the night. My father muttered, 'The devils burn our fields and hogans!'

"Just before dawn we reached the rim of the canyon. My father hid the women and us children in a thicket. Then he slipped away. When he returned he whispered, 'Come ahead. Don't make any noise. For the tracks of the Americans are everywhere!'

"Slipping through the trees we reached the rim. Below us the Ladder Trail dropped 600 feet down to what we believed was safety. Tying on our bundles tighter we started down the ladders made of juniper logs. One by one we went down until we reached the first ledge.

"The next thing I remember was the crack of muskets. I looked up. Smoke-puffs came out of the gun barrels held by blue clad soldiers. As I dived for cover like a packrat going into his nest the shot splattered against the sandstone walls and threw slivers of rock which stung my face.

"With the dying echos of the shots came the death screams of my family. In my burrow I clasped this little bag and prayed.



*Now this pen sketch of the Navajo crossing
the river to Fort Sumner.*

The bullets came so close that they scorched my skin. Then I seemed to smother, and then faded away into sleep.

"When I came to, pale curtains of moonlight were creeping down the sides of the upper canyon walls. I didn't know whether I was dead or alive. I stayed there until the moon died and darkness came. Then I moved away from the now still bodies of my family.

"A faint rustle nearby startled me. There in a crevice lay *Llth baa*, my little sister. Fear had taken her voice. In some way I guided her away from that place of death. Together we felt our way down the dangerous ladders that dropped into the black pit that was the bottom of the canyon.

"When our feet were on solid ground we crept toward the main canyon. Just at the last point we stopped. Horses were coming. While we looked, the red glow of a fire lighted up the streaked side of Lightning Rock. Then the soldiers crossed through the light and went splashing up the canyon.

"With the smell of smoke and death chasing us we scuttled back into the side canyon. In the darkness we climbed up to a

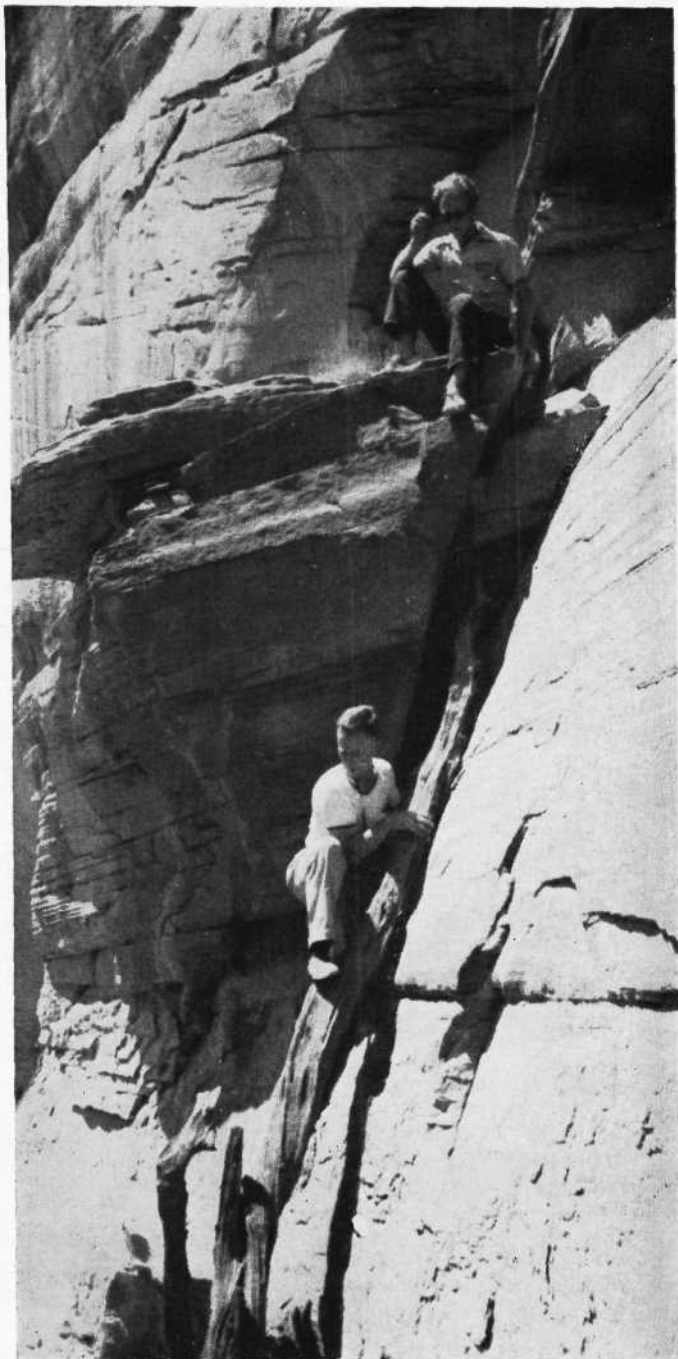
small wind cave. For three days we lay there with no food. The only water we had we got from the moss of a small seepage. On the fourth day a man named Klogi found us.

"He told us that the soldiers had burned up everything in the canyon. They had killed many people. After that they had ridden away toward Fort Defiance. It was now time to get out of de Chelly. Many of those who had escaped were fleeing westward across the Chinlé valley to hide on Black mountain.

"That night we three climbed down from our cave and started out. Instead of going down the Canyon de Chelly to its mouth at Chinlé we turned up the Canyon del Muerto. Klogi knew about a trail that led to the north rim. After climbing to the top we went westward until we came to near present Pinyon on Black mountain.

"There we found many Navajo. A few headmen were holding them together. Some said, 'Let's go farther west and hide in the Grand Canyon.' But most of them decided, 'We'll take the chance of surrendering rather than starving to death down there half way to the Underworld!'

"So we came off the mountain. We started across country toward *Lukaniteel*, the Wide Reeds, which today is called Ganado. At Lizard springs where the Chinlé-Steamboat canyon roads



It was on ladders such as these that Very Slim Man climbed down into the bottom of Canyon de Chelly after the massacre of his family in 1863. Photo by the author.

fork we had to stop and rest. For many of the women had little children and were having a hard time.

"Just about the time we were ready to move on we heard a yell from the low rim above, '*Muerto por los Navajo coyotes!*' And a bunch of Mexicans charged down shooting and yelling. Again I took hold of this pouch and prayed the prayer that my mother had taught me.

"From nowhere there came a *Bilakana* (American) captain and a bunch of soldiers. Riding in between us and the Mexicans he yelled, 'Hold up Armijo! Enough women and children have been killed. These people are my captives. Now my men are taking them to Fort Defiance!'

"So they took us to Fort Defiance. Over 2000 Navajo were there in one big camp. The Zuñi and Ute were dancing around all the time bragging, 'Look what we have done to the Navajo.' An old warrior who had killed many Mexicans grunted one day,

'They would be dancing a different kind of dance if there weren't white soldiers around!'

"One winter day when the snow was up to the horse's fetlocks the soldier chief came around and said, 'Get ready to travel.' By the next morning the wagon train and the walking Navajo stretched out like a great black snake in the snow from Fort Defiance to the Haystacks near present Window Rock.

"By slow stages we traveled eastward by present Gallup and *Chushbito*, Bear spring, which is now called Fort Wingate. You ask how they treated us? If there was room the soldiers put the women and children on the wagons. Some even let them ride behind them on their horses. I have never been able to understand a people who killed you one day and on the next played with your children . . . ?

"After many days we reached *Tósido*, Warm spring, which they now call San Rafael. There was a big fort there. It was here that we were issued our first beef. We needed it for the weather was cold and we were weary. Many of the old people had lain down and died beside the road that was leading them into captivity."

San Rafael, now a New Mexican village, was the site of Old Fort Wingate. Built near the famous springs of Ojo de Gallo, it was first garrisoned in 1863 by the 1st New Mexico Volunteers under the command of Col. J. Francisco Chavez. During the Navajo roundup of which Very Slim Man was telling, it was an important post on the eastward trail to the scene of Navajo captivity, Fort Sumner, New Mexico.

"Here we Navajo saw our first flour. When they gave us the bags we didn't know what it was. So we just started eating. We were an awful sight with that flour all over our hands and faces as we tried to chew up the sticky dough in our mouths . . .

"After a good rest at *Tósido* they started us out again. Traveling down the Rio San José we passed near Cubero and Laguna Pueblo. Then we went across the plains until we reached the Rio Grande river at the pueblo of the *Natoho*, Enemies Near Water, which they now call Isleta Pueblo.

"As the river was up we had to cross in small parties on rafts. I was on one of the last to cross. Just in the middle of the stream it began to sink. We Navajo jumped off and splashed around like a bunch of drowning prairie dogs. Just as I began to go under the prayer my mother taught me went through my mind.

"I swallowed a lot of water. But when I came up my head bumped a log. I clung to it. After a mile or two of floating around, the log grounded on a sand bar. When I waded out shaking like a wet dog all I had left was my breech clout and this little *jish* which was tied around my neck.

"Keeping clear of the *Natoho*, for they were stealing Navajo children, I caught up with my people at *Be'eldil dasinil*, Place of the Bells, which the Mexicans call Albuquerque. This Navajo name was given at this time, for every morning the Navajo heard the bells ring from the cathedral towers.

"After many sun's travel eastward through mountain ranges and across great plains we came to the Pecos river. Turning south we followed its banks until we came to where there were already many Navajo living. When they saw us they cried, 'Now *you* have finished your Long Walk. You will never see Navajoland again!'

At the completion of his "long walk" the 13 year old Very Slim Man had traveled 800 miles across part of Arizona and most of New Mexico. Hwelte, as the Navajo called Fort Sumner was located at Bosque Redondo, some miles south of the present town of Fort Sumner, New Mexico. It was established in 1864 by President Abraham Lincoln as a reservation for the Mescalero Apache and the Navajo.

"Things were bad at Hwelte. The water was sickening. There was no firewood. And when crops were planted either the grasshoppers or the hot winds stole them. Then smallpox came. Our people died so fast we could not bury them. All we could do was watch the coyotes tear them up . . .

"Many of our young men sneaked away and raided the Mes-



Above is maze of canyons in which many Navajo were killed and their property burned by Kit Carson's volunteers in 1863-64. Canyon de Chelly in foreground, with Canyon del Muerto coming in from right center. White streak in background is Chinle wash. Below is hogan in Canyon del Muerto, differing little from those burned in the Navajo roundup last century.



calero Apache and the Comanche far to the east. It was on one of those raids that I almost lost my life. But when people are hungry and cold the most important thing seems to be either food or mischief.

"We traveled into the sun for six days. In the blue-black of early dawn we stampeded a Comanche horse herd. Driving our stolen animals in front of us we moved fast. For we knew that we'd be chased right back into Hwelte. Changing horses we rode day and night.

"As we drew near the Pecos we got careless and slowed down. Suddenly from behind the brow of a low hill the Comanche charged down on us. An arrow struck my horse. When he went down I was thrown. I rolled over in the dust and played dead. Again I repeated the prayer my mother taught me and felt this little bag hanging around my neck.

"Lying there, expecting every minute to be stuck through by a Comanche lance, I prayed. Then I heard the pounding hoofs. I stayed dead. Dust flew in my face as the horses stopped. I prayed harder. Then I heard a Bilakana voice say right over me, 'There's no wounds on this Navvie. He's only stunned I guess. The Comanche got his horse. And they almost got him. He can thank his lucky star that he still has his scalp on his head!'

"Soon after the soldiers rescued me from the Comanche they held a big council at Hwelte. A big chief came from 'Washing-tone.' And after sitting around a table for a long time with Bar-boncito and the other chiefs, they signed a paper. This said that

after four years of captivity we Navajo could return to Navajoland."

The paper that very Slim Man spoke of was the Treaty of 1868 signed by General W. T. Sherman of the Indian Peace commission and the Navajo chiefs. After 77 years this treaty still is considered by most of the Navajo as the Magna Charta of the tribe.

"Like many of the other Navajo, another boy and I left Hwelte the day before the treaty was signed. After reaching Navajoland we stayed around Fort Defiance until *Chá' ts'oib*, Big Belly, whom the White men called Captain Frank T. Bennett, issued sheep. Then we returned to our old family camp at Horizontal White Rock point.

"Our hogans were burned. The things that we had cached in the rocks five years before had been stolen by the packrats and the weather. All I possessed in the world were the clothes I had on, three sheep, and this little medicine bag that you have been trying to trade from me . . .

"So we left Horizontal White Rock point. For the memory of our dead people, whose bones still lie on that alcove above the Canyon de Chelly, hovered over the place. As there were a number of Navajo getting started around Chinlé we made our camps there. For 68 years I have lived right here on top of this knoll."

Then taking the tiny bag with the turquoise bead in its mouth Very Slim Man laid it down between us as he said, "Now you can understand why I never could part with this thing that saved my life four times on my Long Walk to Hwelte. Would you still want to trade me out of it?"

I shook my head—as every reader of Desert would have done.

Parade of Desert Wildflowers . . .

Southern California's desert wildflower display will be disappointing this year to those who go out seeking mesas and hillsides covered with blossom. The season is late, and rainfall has been so spotted as to make wide areas of mass-bloom unlikely. However, the botanist, seeking species rather than landscape display will find a wide variety of both perennials and annuals in bloom.

Death Valley

A good rain in Death Valley in mid-February, followed by warm weather should result in a fair show of April flowers, but no definite promise could be given as early as March 1. Nina Conley, of Stove Pipe Wells hotel, says, "Wish we could tell you that it will be a carpet 150 miles long of beauty, like it was in 1940," but she cannot promise such a display.

Mojave Desert

Elmo Proctor, reporting for the Cronese-Baker part of the Mojave desert, writes that the early rains have resulted in a good early start for a number of the showy flowers. March 1, sand verbenas were blooming as well as several annuals of the sunflower family. The sandy spots, which hold moisture better than the finer soils, were well spotted with young plants of Desert Dandelion, Evening Primrose, Buttercups and others. Just a little rain would bring them to bloom in a short time.

Many seedling plants of Desert Lilies are growing well, Mr. Proctor finds, but none of the older ones which would produce blossoms this year had appeared by March

1. However, he said it still was possible they would come up and bloom by Easter, even without more rain.

For the Daggett area, in central Mojave desert, Mary Beal reports that an appreciable wildflower display in April will depend entirely on rains in March. Both cold and lack of rain in February stopped growth of many of the plants which had got an early start, and others which started later will have to depend on more rain to develop to the blooming stage. Marigolds, Sand Verbenas and various species of Evening Primrose were in evidence but not blooming March 1.

Joshua Tree national monument is one of the most accessible areas with a wide variety of flora, and whether high in the Little San Bernardino or low in Pinto Basin, April usually is the best floral month in this part of the Mojave. Mrs. W. Egbert Schenck, of Twentynine Palms, contributes the following notes, based on many years' observation. Northern section of the monument (the Twentynine Palms entrance), usually is gay with a carpet of yellow *Coreopsis* and yellow *Wallace Eriophyllum*, spangled with white *Pincushions* (*Chaenactis*). Around shrubs, pale purple *Phacelia*, white *California Chicory* and yellow *Desert Dandelion* will be flowering. Many shrubs bloom at this time, such as *Creosote* and *Bladderpod*, and the *Dalea californica*, or Indigo Bush.

Among the rocks on mountain slopes are deep blue *Phacelia* (*Phacelia campanularia*), *Blazing Star* and straw-colored *Mo-*

havea. Almost everywhere on the hillsides and sometimes on the flats are the brilliant blooms of *Beavertail* and *Hedgehog cactus*.

One of the most striking plants of the monument, the *Nolina*, grows in the higher elevations. The tall spikes of this flower begin to show their creamy color in April.

In the southern part of the monument, especially around *Cottonwood Springs*, flowers bloom earlier than in other parts of the monument, but many of these last into April. *Palo Verde*, *Desert Willow* and *Rabbit Brush* are still blooming in April. Great patches of *Chuparosa* may show their bright red flowers.

Colorado Desert

In early March the dunes in *Coachella valley* where *verbena* and *primrose* often carpet the sand with color, were green with the sprouts of young plants, but they are late and it is doubtful if many of them will survive the normal winds of March.

The mesa between *Yuma* and *El Centro* is barren of flowering vegetation this season, but toward the foot of the mountains on the west, extending from the border to *Borrego valley*, *ocotillo* is in leaf and there should be many flowers by April. *Encelia* is starting to bloom; the lower slopes should be covered with its golden bloom by the first of April. In *Borrego valley* some *verbena* is in bloom in early March.

In southwest part of the Colorado desert, *Eva Wilson*, of *El Centro*, observed 32 species blooming February 17. Among the most conspicuous were *Rock Hibiscus* (one of the mallows), *Holly-leaved Burbush*, *Rock Daisy*, *Desert Tea* (*Ephedra*), *Desert Mistletoe*, *Desert Holly*, *Burro Weed* and *Creosote Bush*.

Tree That Jumps

By MARY BEAL

THIS distinctive tree-like cactus commonly is called Jumping Cholla, a name it shares with the Bigelow or Teddy-bear Cholla. Both species have joints so easily detached that they seem to spring at a passer-by. If you're unlucky enough to become the target, you'll find that removing the spine-studded missile is a painful, laborious process. As you dislodge the first spines that impale your flesh, another set plunges in, the long finely-barbed needles piercing deeper and deeper. These plants, while vicious at close range, contribute singular beauty to a landscape. They stand from 5 to 15 feet high, having a stout woody trunk and several large woody branches, often growing in candelabra fashion, the deeply fissured bark dark-brown or blackish. At the ends these rebranch into large dense clusters of succulent, cylindrical joints 3 to 8 inches long, covered with prominent tubercles spirally arranged and so closely set with long silvery-white (sometimes straw-colored) sheathed spines that the dull greyish or olive of the surface is quite concealed.

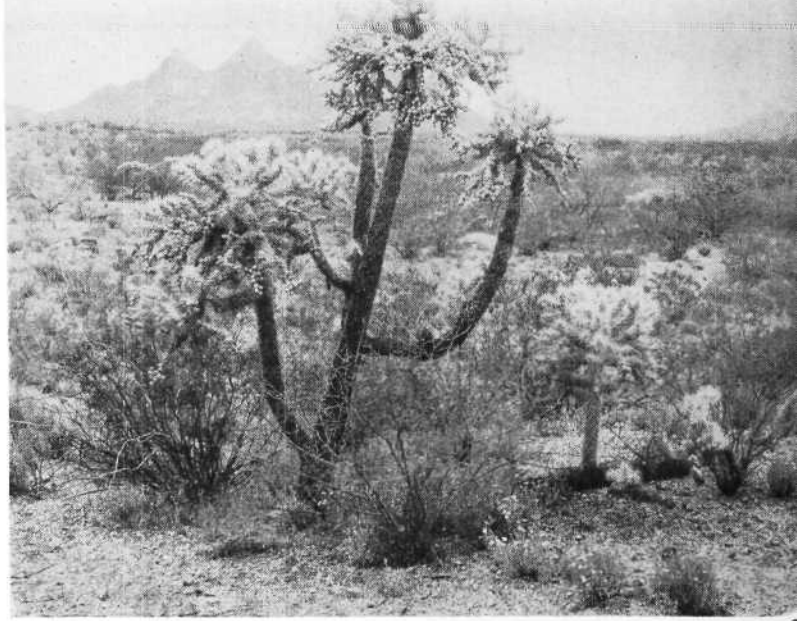
A many-branched specimen develops into a very broad round-
ing crown densely crowded with the spiny joints. When seen against a background of dark volcanic rock, such as Picacho Peak in Imperial county, California, the masses of dazzling white stand out arrestingly. A whole grove of these dwarf trees—and there are a number of sizable forests—glistens so brightly in the sunshine that it is strikingly noticeable from a distance of several miles. Botanically it is classed as

Opuntia fulgida

No doubt this is the most abundant Cholla in southern Arizona and northern Mexico. Its most noticeable characteristic is the amazing crop of fruit hanging from the clustered joints in long chains bunched in tassels, as many as 15 of the small pear-shaped fruits strung into one chain, remaining fresh and unchanged for years. The cup-shaped flowers are small, less than an inch across, bright rose-pink, or white streaked with purplish, the 5 to 8 petals broad and blunt, sometimes with yellow tinges, blooming from June to September. They sprout from the circular tips of old fruit, and next season when they have matured into fruit, other flowers grow from their tips, starting the chains. The fruit is green, plump and pulpy, an inch or so long, not tuberculated or very slightly so, with tufts of minute spicules but no spines. This bountiful crop affords a palatable food for range cattle, which at times devour even the spiny joints, and certain Indian tribes relish the acid flavor of the fruit when boiled.

Mexicans call it *cholla blanca* and it whitens many an acre below the border. Dr. William Hornaday tells of a 40 acre tract in the Pinacate region so thickly covered with these sturdy Tree Chollas, to the exclusion of everything else, that one could not walk between them. An impenetrable stronghold against human invasion—but what a refuge for small animals, reptiles, and birds such as the Cactus Wren. Common on sandy and gravelly soils on plains, valleys, mesas and low rocky foothills in southern Arizona and northern Mexico up to 4000 feet, often forming dense forests.

Its variety *mamillata*, given rank as a species by some botanists, has a distinct trunk and a broad dense top but is only 3 to 6 feet high, the branches weak and drooping. The joints are dark green, 3 or 4 inches long, with prominent tubercles and only a few short spines. The fruit and weakly-armed joints supply the staple food, also drink, for cattle during three or more months of the year in certain districts of Sonora. The milk from Cholla-eating cows is said to be very good. The largest areas where this variety flourishes are in northern Mexico but it is not uncommon in the fertile valleys of southern Arizona, grow-



Tree Cholla is a favorite home of the Cactus Wren, which often builds its globular nest in the center of the dense mass of thorny stems.

ing along with the species, more frequently in the higher elevations. Other closely allied Tree Chollas are the following:

Opuntia versicolor

The Many Colored Tree Cholla is one of the showiest of Arizona's many striking cacti, remarkable for its brilliant varicolored display. The main woody trunk usually is 2 or 3 feet tall, intricately branching into a broad, open, rounded crown, the complete little tree averaging 4 to 8 feet, the finest specimens attaining 12 feet. The tubercled joints are dark green suffused with purple, reddish or brown, 2 inches to over a foot long, with an armament of spines in a mottled effect of grey, purple and brown, the thin close-fitting sheaths straw-colored or greyish, early deciduous. In April and May the numerous flowers appear in small clusters at the tips of the joints or often from the areoles of the old fruits, the petals yellow, greenish, pink, red, maroon, or oftenest orange or bronze, 1½ to 2 inches broad. The fleshy pear-shaped fruit is yellow-green tinged with purple or red, commonly spineless, often in short chains of 2 or 3 fruits, sometimes remaining unchanged for a year or so.

Abundant in the arroyo beds and shrubby valleys of southern Arizona and northern Mexico at elevations of 2000 to 3000 feet.

Opuntia spinosior

Cane Cholla, or Tasajo as the Mexican natives call this Tree Cholla, intergrades with the preceding. During blossom time (May and June) it too merits the label "Many Colored," when it is bedecked in most of the colors of the rainbow. The average height is 4 to 8 feet but under favorable conditions may reach 15 feet. The main woody trunk is rather short, with several large ascending branches spreading out into a broad irregular crown of whorled branchlets, which fork at right angles. The strongly tubercled joints, 3 to 9 inches long, are grey-green, often tinged with purple and yellow, well-armed with short grey spines tinged with purple, red or brown, the thin yellowish sheaths falling after the first season. The many showy flowers are 2 or 3 inches across and run a fascinating chromatic gamut of white, yellow, orange, copper, bronze, red, rose-pink, lavender and purple, each plant a splendid demonstration of its special color. Adding to the decorative effect are the clear bright lemon-yellow fruits, broadly ovoid and strongly tuberculate, with a deep cup in the apex. They remain on the plant a year or more, as conspicuous as blossoms during the flowerless months.

The southeast quarter of Arizona harbors a fine array of this colorful species on gentle slopes, rocky foothills and sandy open desert, 2000 to 5000 feet or higher, extending into northern Mexico and adjoining New Mexico.

Mines and Mining . .

Tonopah, Nevada . . .

After lying idle for 12 years, the Doc Wilson turquoise mine in the Lone Mountain area is to be reopened by Wilson and his son, it is reported. New equipment for deep mining is to be installed, and according to the owner, all the output already has been contracted for.

Bishop, California . . .

Bodie, famous old camp north of Mono lake, California, is to be reopened by a British group operating as Sierra Mines, according to reports. The company has acquired the property of the Cain estate and plans to build a mill of 500 tons capacity. The mines were rich gold-silver producers in the early '80s.

Shiprock, New Mexico . . .

Helium deposits on the Navajo reservation near here are to remain in the ground for the present according to officials of the Bureau of Mines. A war-built extraction plant will be held in readiness for production if needed, but since the helium plant at Amarillo, Texas, is taking care of current needs, the Shiprock deposit will be retained for standby purposes only.

Caliente, Nevada . . .

John Callahan reports the discovery of a fine deposit of turquoise on his property near Columbus in Esmeralda county. The gemstone is being found in nodules ranging from a half inch to two inches in diameter, and is said to be a rich robin-egg blue. The claims are a few miles west of Coaldale.

Washington, D. C. . . .

With all war-time restrictions removed, gold-mining is on the upswing again. Production for 1945 was as follows in fine ounces: Arizona, 75,000; California, 172,100; Colorado, 99,811; Idaho, 21,000; Montana, 45,500; Nevada, 101,500; New Mexico, 5111; Oregon, 4600; South Dakota, 40,253; Utah, 274,500; Washington, 57,500, and Wyoming, 2. Alaska's 68,588 brought the country's total output to 967,465, compared to 995,799 for 1944. While Utah led in 1945 production, at the end of the year California was moving into the lead with South Dakota and Alaska also showing tremendous gains. In Utah mines gold is recovered largely as a by-product of other mining, and consequently its yield was high during the war

period. However with the revocation of order L-208 late in the year the placers and gold-ore producers were able to resume operation and this explains the gains now being made in states where "pure gold" is mined.

Kingman, Arizona . . .

Averaging \$70 a ton, regular shipments of ore to Clarkdale smelter are being made by Jack Miller of the Eagles mine in the Cerba range 19 miles north of here. Formerly known as the Bismark mine, the property is a gold-silver producer with some lead. The property is an old producer, but has lacked transportation to market for any but the highest grade of its ores.

Carson City, Nevada . . .

Ten million new silver dollars commemorating the World War II victory, and 10,000,000 half dollars symbolizing the lesson of Pearl Harbor would be minted under two bills introduced in congress by Senator E. P. Carville of Nevada.

First carload of "Wonder Rock" to be shipped from a deposit 21 miles east of Tonopah, was sent to Tacoma, Washington, for processing early in February. Owners of the property are C. L. Perkins, G. L. Scholl and I. F. Macy. The colorful rock is to be cut and polished for ornamental purposes.

Imperial Irrigation District Power . . .

Thousands of Miles of Imperial Irrigation District Power Lines Keep the Light Bulbs Burning in the Fertile Coachella and Imperial Valleys . . . Approximately 18,000 Consumers Depend on the District's Publicly-Owned and Operated Power System to keep Lights, Machines, Farms and Industrial Enterprises Going.

This vital electrical energy comes from:

- Two Hydro-Electric Plants on the All-American Canal.
- An eight-unit Diesel Plant at Brawley.
- A Contract with the U. S. Bureau of Reclamation for use of its transmission line from Parker Dam.
- An exchange agreement with the California Electric Power Company.

From these sources, power flows into miles of District lines through scores of substations and transformers, into homes, offices, factories and farms.

Since 1936, the people of Imperial Valley have

built a power system as efficient, as modern, as profitable as any in the country . . .

In order to guarantee facilities for the District's power load for the next five years, Imperial Valley voters on December 13, 1945, approved a \$6,200,000 Power Revenue Bond Issue to finance a construction program that will include a 20,000 kilowatt steam electric plant with ultimate capacity of 40,000 kilowatts, new substations, transmission lines and added "betterments and improvements" to the system.

Imperial Irrigation District's Power System is Paying for Itself Out of the Revenue it is Bringing in.

DISTRICT POWER IS GOOD BUSINESS!

Imperial Irrigation District



LETTERS...

Put 'em on the Desert . . .

Imperial, California

Dear Randall:

The controversy over the proposal to locate UNO headquarters in the Stamford-Greenwich area prompts me to point out the failure of Desert, as spokesman for the great American desert, to advertise the merits of this area as a site for any legislative body.

The ten commandments have had the respect if not the observance of men through the centuries. Those commandments were brought down from the isolation of a mountain top. Now we must admit that Moses enjoyed better legislative counsel than the UNO will be able to secure, but isn't it possible that the decalogue gained something from the majesty and the isolation of the locale?

There, the writer was not surrounded with the artificial life of a city. No night clubs, no lobby, no communication services—not even letters to the editor. To these negative values add the serenity, the peace and quiet of the desert. Isn't it probable then that UNO would produce a saner, more natural and basic solution of world problems than can be expected from any of the locations proposed?

S. E. ROBINSON

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Views from Beowawe . . .

Beowawe, Nevada

Gentlemen:

I've enjoyed Desert a lot, but there are a lot of things I disagree with. For instance, don't bother changing "Desert Rat." Who cares, as long as the old-timers like the term?

I do not subscribe to grabbing all the country for parks. I thought your editorial on that subject all wet. Look at the 980,000-acre grab on Olympic Pen. All who understand the park game know they never harvest a timber crop—but just let it rot.

I got a kick out of a mining item in Utah about 1½ years ago. They talked about "bromide of gold." I looked for comments. None came, so I guess the author got away with it. A couple of assayer friends laughed and said, "there ain't no such animal" except in laboratory tests and by extraction from sea water.

Altogether I think your Mag is swell, and believe me I read every word, including the ads.

WM. G. NEWBURY
(Desert rat—not 'dab')

P. S.—I've beat the gold pan and mining game around here nearly 10 years, so I guess I qualify as a Desert Rat.—W.N.

Borrego Cactus Garden . . .

Santa Monica, California

Dear Mr. Henderson:

Your suggestion in D.M. for March that the professors of the University of California at their experimental station in Riverside "train their bugs so they'll know the difference between prickly pear and a bisnaga or saguaro or beavertail" meets with my most hearty approval. In my memory gallery of beautiful pictures is one of exquisite desert loveliness. The cactus gardens in the Borrego State Park area as I saw them one evening a few years ago while approaching Ocotillo from Warner's Hot Springs. In that mystical evening hour the scene presented by the numerous variety of cacti over that vast area was one of Nature's most inspiring, brilliant and colorful pictures I had ever seen. May all the beauty that goes to make up this land of sun, sand and silence be forever preserved.

KATHRYNE LAWYER

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Origin of the Mojave . . .

Victorville, California

Dear Desert:

My family and myself are steady readers of Desert Magazine and half of our neighbors finish the magazine off after we have read and reread it. Why don't you print more about the Mojave desert? You know we have the finest desert country in the world right here in our own back yard.

Here is a little ditty I dashed off just to show you what I mean.

THE MOJAVE DESERT

When the Creator finished abuilding the earth
He looked at the job and said "Grand."
But He found that He had a big pile of rocks left
And a whole pile of bright colored sand.

Well He looked all around for some desolate
place
That He wouldn't be needing just then,
To dump the whole molten jumbled up mess
Where it would not interfere with His men.

He threw in the corners He'd knocked from
the stars,
And the gold nuggets chipped from the sun.
And all of the silver He'd scraped from the
moon
And He mixed it all up just for fun.

Then He fixed up some odd looking bushes
and trees,
And He rooted them firm in the lava.
And He threw in some varmints with teeth in
their tails.
Thus He created the Desert Mojave.

This just gives you a faint idea of what
we have here on the Mojave desert.

OTTO H. ROWLAND

A Noble Experiment, But . . .

Walla Walla, Washington

Gentlemen:

Now the Souths have answered the question many of us have asked, "Why do you do it?" by saying it is to demonstrate a better system of existence. To quote: "... aim at the establishment of a center of handicraft, art, publishing and industry . . . a clan center . . . where food will be raised, all necessities needed will be products of home handicrafts . . . A co-operative, personal body as self-supporting . . . Demonstrating a more equitable system of existence."

Certainly no one could object to that, if it is obtainable. But why they chose the top of a barren mountain with scant natural resources and even less of water, is hard to comprehend. This recalls to mind some 40 years ago a group of earnest and sincere men and women banded themselves together to work out a system of cooperative living in Antelope valley, California. Later they migrated to a more suitable location in Louisiana. After 20 years of much thought, earnest efforts and the expenditure of a lot of cash, the whole scheme went ga-busted—a failure. It was a noble experiment wrecked upon the rocks of reality.

G. W. WEBER

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Headin' South . . .

Monterey, California

Gentlemen:

Where is my February copy of Desert?? Maybe I haven't paid for it, so here is a check. I cannot keep house without Ol' Desert. Your damned old desert is too far away for me to enjoy in person, so I have to ramble around with you by proxy.

The January issue sold me the idea of getting right into my car and starting out to hunt and lick jasper by Post 114. Tell the Bloomingdales to look for me with a gang from the Monterey Bay Mineral society, including the Eddies' and the Flip-pins, just as soon as the snow melts in Southern California.

PAL CLARK

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Comradeship With Nature . . .

Prescott, Arizona

Dear Staff:

I express my hearty appreciation for those fine articles and poems written by Tanya and Marshal South. It is grand to know there is still a family which enjoys comradeship so completely within their own household.

I sincerely believe, living in accord with Nature as this family is doing, that juvenile and adult delinquency would disappear as vapor. Nature is the greatest teacher if we walk quietly with Her.

MRS. E. J. McCORMICK

Jobs for Tenderfeet? . . .

Black Mountain, North Carolina

Dear Sir:

We are addressing you in the hope that should you find it convenient to publish this letter it may attract the attention of persons in a position to assist us.

We are two college students interested in obtaining summer employment at a western resort or dude ranch with a view not only to financial gain, but also to furthering our knowledge of the culture and people of the West. One of us is an art student with three years' experience in pottery and ceramics at the Cleveland School of Art. She has had considerable experience teaching horseback riding, and in silver jewelry and enamelling work. The other is a recently discharged veteran who speaks French and German and has had selling, clerical, and restaurant experience. We are both tremendously interested in the prospect as an opportunity to learn and to observe as well as an opportunity to earn our educations.

We would appreciate any advice or information, or any pertinent references.

Laurie Mattlin

John M. Bailey, Jr.

Another Centipede Victim . . .

Tulsa, Oklahoma

Gentlemen:

I have just finished reading W. D. Woodson's article on the desert centipede. Now I want to tell you my own experience.

I was raised in southeastern Arizona. About 1910, if memory is right, when I was a very small boy I was bitten by a centipede, a big fellow over seven inches long.

Of course I was very frightened, and so was mother, as we had heard many tall tales about the centipede. Well, it wasn't very serious. I had a sore leg for a time, and about a week later two tiny cores came out where the fangs penetrated the skin. I can say this, I have had more pain from the bite of a desert wasp or the scorpion. All this for whatever it contributes to the truth about the centipede.

A. L. Caldwell

Devil's Claw in Ohio . . .

Urbana, Illinois

Dear Mr. Lauder milk:

I am writing in appreciation of your article in the February number of Desert Magazine, describing Devil's Claw. About five years ago one of those plants grew in our garden in Delaware, Ohio. It was a curiosity to all who saw it, as it grew and developed its strange pods. Next season I planted seed, but it did not grow. So it was like an answer to a prayer to find it all written up by you in Desert. I wish to thank you for this interesting article—but for this I may never have learned its name or life history.

Leona Wallace



WE'RE GONNA RAISE THE PRICE

Here in the Desert Magazine office we've been rather proud of our achievement in being able during the inflationary period of the past six years to hold our subscription price at the same figure as when Desert was started in 1937—at \$2.50 a year.

We've seen other prices advance all along the line. Despite the valiant efforts of the OPA, living costs have gone up very appreciably. Nearly all other magazines have increased their rates. The printers have had three raises—and they are earning every cent they get. Halftone engravings and paper and ink all have advanced. Even the boy who sweeps the office gets nearly double what he did in 1940—and deserves it.

Even now, in spite of all these increased costs, we might be able to hold the \$2.50 line—were it not for one thing. And this is the one thing—

BEGINNING WITH THIS ISSUE ALL MAIL SUBSCRIBERS WILL RECEIVE THEIR COPIES IN ENVELOPES OR WRAPPERS.

Those envelopes are the straw that broke the camel's back. Long ago we decided that as soon as the kraft paper could be obtained, we would start mailing the magazine in envelopes. Only a few of our subscribers—those living in the rural areas—have been getting their Deserts in wrappers. All others have gone out unwrapped—and when the handling was careless, the magazines arrived in not too good condition.

And now we can get the envelopes—but the cost of them has advanced nearly 50% during the war period. We find it impossible to mail Desert in envelopes at \$2.50 a year. And so, beginning April 1, the rate schedule for our magazine will be as follows:

	Old Rate	New Rate
1 year's subscription	\$2.50	\$3.00
2-year subscription	4.50	5.00
Gift subscriptions included		
in same order	2.00	2.50
Newsstand copies25	.25
Loose-leaf binders	1.25	1.25

A large percentage of our subscribers pay for two years in advance. For these, the new \$5.00 rate means an increase of only 25 cents a year—just about enough to pay for those envelopes.

We know our readers, and especially those who are keeping permanent files of Desert—will like the envelope idea. We hope all our subscribers will feel that Desert merits the price we are charging for it.

Cordially,

Russell Anderson

Publisher.

HERE AND THERE... on the Desert

ARIZONA

Tentative Okay Given New Dam...

KINGMAN—Following approval of U. S. Bureau of Reclamation, only congressional approval remains for fulfillment of a 30-year dream to bring Colorado river water to central valleys of Arizona. This is the tentative approval of Bridge Canyon dam, to rise 740 feet above bedrock at a point 20-odd miles north of Peach Springs, in Mohave county. Plans involve building of a tunnel, originally estimated at 78½ miles in length, power drop at tunnel outlet, delivery of water to proposed McDowell reservoir at Granite Reef, where a second power drop would be constructed. Project also calls for canal from Stewart Mountain dam to point on Gila river above Florence to supplement water supply of Gila river in Casa Grande valley and nearby areas. Plans are being prepared by Bureau of Reclamation and state officials for congressional consideration.

Pioneer Hiking Club Reorganized...

FLAGSTAFF—An outdoor club of long campus history, the hiking club of Arizona State Teachers college, resumed activities in February with election of officers and planning of weekend hikes. First hike was to Walnut Canyon national monument, 12 miles east of Flagstaff. Final hike of the year may be participated in only by those members who have conditioned themselves by taking 100 miles of preliminary hikes. Traditionally either Havasu canyon, bottom of Grand Canyon or Rainbow Bridge is chosen as the goal of the last hike. (See DM, Oct. 1938.)

Grand Canyon Prepares for Guests

WILLIAMS—For the first time since war started, tourist service is expected to be in full operation by summer, according to announcement late in February. Lodge and cabins on North Rim, as well as Bright Angel lodge and the cabins at Grand Canyon, are expected to be open. Passenger train service from Williams to Grand Canyon is expected to resume, and Desert View watch tower and Hermit's Rest are expected to return to normal schedule. Other services expected are sight-seeing bus tours, lectures and motion picture programs.

Phoenix Has New Mayor...

PHOENIX—Ray Busey, Phoenix paint merchant, on February 26 became mayor-elect at primary balloting. At the same election, a proposal to boost pay of mayor and commissioners to \$3500 and \$2400 per year respectively, was defeated.

This Town's Slipping...

JEROME—"This is about the only place in Arizona where you can still rent a house or an office or a whole office building, and still keep your shirt and soul." That is the only bright spot in Jerome's picture, as far as City Manager R. E. Moore can see. This is the town that's literally sliding into oblivion. Since 1930 land on which the town was built has been sliding and collapsing into abandoned copper mine shafts at rate of a foot and a half a month. Some of the buildings are clinging precariously to the sides of the mountain on stilts. Mining operations were abandoned when one ore body gave out. Other mines in Cleopatra mountain are operating but newer towns in the area eliminate necessity for Jerome's continued existence—so Moore looks down sadly at the little moving town he has managed for 21 years and doubts if it ever will make a comeback. Peak population was 8500. Since war took men to service and war work, only 2000 remain.

Nazi POWs to Leave Arizona...

PHOENIX—One of Arizona's two prisoner of war camps was scheduled to close in March when 3000 Germans were to leave nearby Papago Park to board ships at San Francisco for return home. The remaining 1000 prisoners were to be transferred to the other camp at Florence, which also is scheduled to close soon.

THE HOTEL AT THE PALMS

FIREPLACE—
ADOBES

ALL SPORTS

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ALL YEAR



Gateway to Joshua Tree Monument

ROBT. VAN LAHR, Mgr.

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29 Palms Inn, Twentynine Palms, Calif.
or Call any Travel Bureau or Automobile Club

**29 PALMS
INN**

SCOTTY'S DESERT RESORT

Modern Housekeeping Cabins

On Highway 78—35 miles east of
Julian. Land by plane on dry lake
by Highway.

For Reservations Phone...

M. W. Scott, Ocotillo, through
El Centro, California, Exchange

BY BOAT into the heart of the Southwest's most scenic can- yon country with **Norman Nevills**

A limited number of reservations are now being made for the 1946 Nevills expeditions down the San Juan and Colorado rivers—191 miles in seven days. Special-built river boats, skilled boatmen, good food and sleeping bags for all passengers.

Boats start from Mexican Hat, Utah, on the San Juan, and complete the trip at Lee's Ferry on the Colorado. Arrangements will be made to have your car driven from Mexican Hat to Lee's Ferry. Sidetrips include:

Crossing of the Fathers, Music Temple, Mystery, Twilight and Hidden
Passage Canyons, Outlaw Cave and the famous Rainbow Bridge

For schedules and rates write to...

NORMAN NEVILLS — — — — BLUFF, UTAH

"... A river trip with Norman Nevills is more than a mere boat ride. It is a flight on a magic carpet of adventure into a canyon wilderness of indescribable beauty and grandeur."

—DESERT MAGAZINE

THE DESERT TRADING POST

Classified advertising in this section costs 7 cents a word, \$1.00 minimum per issue

MISCELLANEOUS

INDIAN RELICS: 4 very fine ancient Indian arrowheads \$1.00. 4 very fine bird arrowheads \$1.00. 10 nice perfect arrowheads \$1.00. Stone tomahawk \$1.00. 2 flint skinning knives \$1.00. 10 arrowheads from 10 different states \$1.00. 10 arrowheads of 10 different materials \$1.00. 2 nice spearheads \$1.00. 4 small spearheads \$1.00. 5 stone net sinkers \$1.00. 5 stone line sinkers \$1.00. 2 fine flint chisels \$1.00. 4 finely made duck bill scrapers \$1.00. 10 stemmed scrapers \$1.00. 5 rare round hide scrapers \$1.00. 5 small finely made knife blades \$1.00. 2 stemmed hoes \$1.00. 4 fine drills \$1.00. 5 fine awls \$1.00. Rare ceremonial flint \$1.00. 4 sawedged arrowheads \$1.00. 4 odd shaped arrowheads \$1.00. 4 fine drill pointed arrowheads \$1.00. 4 flying bird arrowheads \$1.00. All of the above 23 offers for \$20.00. Location where found given. 20 slightly damaged arrowheads of good grade \$1.00. 100 rough and damaged arrowheads \$3.00. List free. Lear's, Box 569, Galveston, Texas.

PRIMITIVE MAN — The largest collection in the world of partial upper bone structures of early North American Man is now on display at the Grail Fuller Ranch, Daggett, Calif., by Mr. Howard K. Lucas who has spent many years in its assembly. Mr. Lucas is also a rock expert and was formerly with the School of Mineral Industries of the Penn. State College in addition to having spent several years in field work in every state in the Union. Associated with him is Mrs. Lucas, an expert taxidermist. Whatever information you desire on the desert send your problem to the Grail Fuller Ranch, located 1/4 mile west of Daggett, Calif., on Highway 66. Phone Barstow 3489. The ranch can also be reached from Highway 91 by turning south just 3 miles west of Yermo, California.

\$2.00 SPECIALS, Archeological—1 Stone Celt, 1 Flint Cak, 1 Shell Spoon, 2 Pottery Sherds, 3 Arrow Points, \$2.00. **FOSSILS**—2 different Fern Leaf, Types, 3 Blastoid or Crinoid Flower Buds, 2 different Plant Leaf, Types, 3 Crinoid Stems \$2.00. **MINERALS**—9 different colors of Fluorite and other Minerals found in the Kentucky-Illinois district, \$2.00. All three above assortments \$5.00 delivered. **ANCIENT BURIED CITY**, Wickliffe, Kentucky.

WE ARE AGAIN RECEIVING real hand-hammered Indian jewelry from the reservation all made by top silversmiths. For our rock customers we have bought another collection of rock, making this one of the largest collections of rocks and minerals in this part of the country. Our collection of rugs, baskets and jewelry is still large despite the shortage. Come in and see us. Daniels Indian Trading Post, 401 W. Foothill Blvd., Fontana, Calif.

WESTERN BOOKPLATES. Novel, individualized. \$1.00 per hundred. Send dime for samples—deductible from order. The Trading Post, R.F.D., Evergreen, Colo.

INFORMATION: What do you want to know about the Colorado desert, SW Arizona, SE California? Rocks, minerals, mines, travelways, waterholes, flora, wildlife, etc. Also Colorado River fishing information. An old Desert Rat will give you reliable information. Personal letters \$2.00. Address Desert Rat, Box 356, Winterhaven, Calif.

CACTI AND SUCCULENTS—From the deserts of the world. Don-Rita brand. By appointment only. Write us your needs and we will try to help you. Michael-Donnelly Cacti Gardens, 334 Lowell St., Daly City, Calif.

LARGE STOCK genuine Indian silver jewelry. Turquoise and petrified wood—complete stock. Also Indian Rugs. Wholesaler quitting business. Jewelry stock wholesale inventory \$27,000.00. Will sacrifice for \$19,000.00. M. Brod, 520 West 7th St., Room 703, Los Angeles 14, Calif.

INDIAN AND ESKIMO dolls, beaded moc-casins, miniature totem poles, other Alaska native products. Northwest Indian Novelties, 2186 N. W. Glisan, Portland 10, Ore.

DESERTATIONS: 'Most ever'body seems t' be tawkin' ag'in inflaytion, but no one seems t' be doin' nuthin' bouten it, 'ceptin' t' raise prices. Them swell folkses at the *DesArt Shop*, 329 College St., in Santa Fe, N. Mex., is bizzzy doin' wurk fer you swell desert fotograffists, an' gittin' the'r purty painted fotograffs ready fer the people's t' buy, but they is still ready t' do more wurk fur y'u in the way uv any foto services y'u might require. Ryte 'em an' ast 'em abouten this, er come in an' see 'em when y'u're this way. Azzever youm, *Art of the Desert*.

BOOKS — MAGAZINES

ARIZONA HIGHWAYS, Deserts, National Geographics, other magazines, bought, sold, traded. John Wesley Davis, 1611 1/2 Donaldson St., Los Angeles 26, Calif.

READY MARCH 15th: "Lost Mines of the Old West" by Howard D. Clark in collaboration with Ray Hetherington. Original pen and ink sketches by Cedric W. Windas. Featuring the lost "Peg Leg" along with 24 other famous lost mine stories. See your nearest book dealer or order direct from distributor. Price \$1.10 postpaid. Western Book and Magazine Shop, 331 1/2 So. Hill St., Los Angeles 13, California.

GUITAR, UKELELE, Mandolin, Violin, Complete Chord Chart, all keys, dollar each. Bass \$1.50. "Free Tips," "Prairie Music Quarterly" \$2.00 per year. Buy, sell, swap Instruments, Picks, Books, accessories. Gilmore, Rt. 1, Golden Glow Hts., Elmira, N. Y.

BOOKFINDERS! (Scarce, out-of-print, unusual books). Supplied promptly. Send wants. Clifton, Box 1377d, Beverly Hills, Calif.

GOLD PANNING FOR PROFIT. Healthy, fascinating occupation. Beginners' big instruction book, blueprints, photograph—\$1.00. Desert Jim, 208 Delmar, Vallejo, California.

BOOKS OF THE SOUTHWEST. For outstanding titles on the desert country—Travel, History, Desert Plants and Animals, Gems and Minerals, Indians, Juvenile — write Desert Crafts Shop, 636 State St., El Centro, Calif. Free catalog.

Boettiger Now Phoenix Publisher . . .

PHOENIX—A new daily paper will be published here by John Boettiger, son-in-law of the late President Roosevelt, it was announced late in February. As initial step to establishing the daily he and his wife have bought the weekly shopping news. Boettiger is former publisher of Seattle Post-Intelligencer.

Flagstaff Expects Airline . . .

FLAGSTAFF—If application of Arizona Airways, Inc., for extension of its routes to include inter-state service, receives approval of Civil Aeronautics Board in Washington, Flagstaff will be on a direct route to Salt Lake City.

Bernard MacDonald, former druggist of Kingman, was appointed in February to succeed Loren Cress as state highway commissioner, northern district.

Charles C. Niehuis, director of information for Arizona Game and Fish commission for past four years, resigned in February to assume duties as full-time secretary of Arizona Game Protective association and editorship of the association's magazine *Arizona Wildlife and Sportsman*.

James M. Flake, 86, Arizona stockman for 67 years, died in February. He was eldest son of Wm. J. Flake, founder of Snowflake in 1878.

Survey of population of metropolitan Phoenix, based on mail deliveries, indicated January 21 that 165,000 persons reside in this area.

Phoenix has been chosen site of 1947 convention of American National Livestock association. Date has not yet been set.

LIVESTOCK

KARAKULS. Producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

REAL ESTATE

FOR SALE: 5 acres cheap near Needles. Elms, 2834 E. 5th St., Long Beach, California.

For Imperial Valley Farms—

W. E. HANCOCK

"The Farm Land Man"

Since 1914

EL CENTRO — — — CALIFORNIA

CALIFORNIA

Tebo Elected Highway Head . . .

INDIO—Frank Tebo of Indio has been named current president of Coachella Valley-to-Ocean Highway association. Other officers include Clark Devaney, first vice-president; D. Brubaker, second vice-president, and Clarence A. Washburn, secretary-treasurer. Purpose of association is to realign road from Palms-to-Pines highway to the Imperial highway near Aguanga, thus making a shorter route from desert to ocean. Recently association has extended its activities in effort to secure a cross country highway connecting Borrego Valley and Hemet by Coyote canyon, the old De Anza route. Association has approved naming this route the Anza Trail after the explorer who brought a colonizing party over it from Mexico in 1774-75.

Desert Circus Set for April . . .

PALM SPRINGS—Plans for revival of Palm Springs Desert Circus were well underway in mid-January, with election of officers and directors, headed by President Frank Bennett. Circus dates were set for April 3 to April 7. Tentative program calls for fashion show, luncheon at Desert Inn mashie court, street dance, kangaroo court, Village Vanities, parade, rodeo, annual ball, community breakfast ride.

Beautiful Pictorial Guides

These picture-filled books will add enjoyment to your trip into the enchanting corners of the Southwest. They will help you explore ancient cultures and give you the "feel" of the beauty and drama of old civilizations . . . And what gift could your friends appreciate more?

SANTA FE. Ernest Knee. Series of rare portraits of Santa Fe against a background of old cultures and New Mexican setting. People, architecture, arts and crafts, and landscapes captured in photographs . . . **\$2.00**

MISSION SAN XAVIER DEL BAC. American Guide Series. Architecture of beautiful San Xavier mission, illustrated in detail by 32 full page photographs in soft gravure. Text relates story from founding in 1700 to present day. . . **\$1.00**

THE PUEBLOS: A Camera Chronicle. Laura Gilpin. Ancient Pueblo civilizations and modern Indians. Over 70 photographs in sepia, 124 pages of text resulting from 20 years' research and study in Arizona, New Mexico and Colorado. Bound in blue cloth, decorated in silver. Map . . . **\$3.00**

DESERT CRAFTS SHOP

636 State St. El Centro, California

Desert Old-timers to Celebrate . . .

TWENTYNINE PALMS — "There'll be a kangaroo court—and if every man hereabouts hain't wearin' a beard an' desert duds they's liable to be a hangin'." That was the warning of Old-timer Bob McCown when he announced plans for revival of Twentynine Palms' annual Pioneer May Day. Welcome home to all servicemen will feature the day, with a general home-coming and get-together of all Twentynine Palmers and former desert residents. Horse events, barbecue or chuckwagon feed, hard-time dance, soap box derby and other novelties are being planned.

New Canal Link Contract Let . . .

INDIO—A new \$1,228,841 contract for a ten mile section of the 145-mile Coachella branch of All-American canal was awarded Shea company and Morrison-Knudsen company, both of Los Angeles, in February, it has been revealed by bureau of reclamation. This section is due east of Indio. Bureau expected to advertise for bids for additional mileage soon. The Coachella canal, it is planned, will irrigate approximately 75,000 acres in the valley, north of Salton Sea.

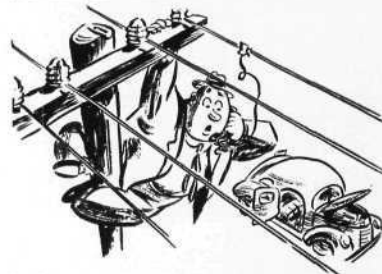
Famed Stagecoach Driver Dies . . .

BANNING — Captain William Banning, 87, for whose father General Phineas Banning, this city was named, died in Los Angeles January 27. He was one of the last of the daredevil six-horse stagecoach drivers of the old line from San Pedro, through San Geronio pass, to Yuma, Arizona. The Banning family once owned Santa Catalina island. His brothers were the late Joseph and Hancock Banning, and he was a relative of the late Gen. George Patton. He collaborated with his nephew George in writing of *Six Horses*, a book dealing with development of the West in terms of transportation, particularly the stagecoach. In later years Capt. Banning had assembled a world-famous collection of early vehicles at his home in Walnut, and maintained stables for several coach teams which he drove about the countryside, disdaining modern transportation. At time of his death he was president of Western States Horse Drawn Stagecoach Drivers association.

Wants Monument to Desert General

INDIO—A monument to Gen. George S. Patton, located east of here where the famous leader established his Desert Training Center has been proposed by Supervisor Walter V. Pittman. Monument would be erected by popular subscription by residents of Southern California and would be located on county land at an appropriate site on US 60 near Camp Young, which was commanded by the general.

HELLO - GIMME LONG DISTANCE



There is a man who owns a middle-aged automobile.

That is, he has had the vehicle so long, it seems like he bought it back in the middle ages.

But the car ran very well and there was a lot of transportation left in it.



The motor bearings were good, as bearings go. And as bearings go, his went.

He had been working on the theory that motor oil and license plates are changed at the same time.

So the bearings got so hot they froze.



At the time of the works stoppage, the man happened to be on a long distance drive. He was miles from nowhere, even by the shortest route.

He had to climb the nearest pole and phone for help.

Help came in due time — and so did a repair bill.



The Salesman at a Shell Service Station said to the man:

"You were expecting your car to last for the duration of the war. Well, Sir, the war is over but the duration has just begun.

"From now on please let me put Golden Shell Motor Oil in your crankcase at proper intervals. This will save your motor, your money and a lot of your minutes."

So the long and short of it is, the man concluded that the longer between oil changes, the shorter the motor's life.

— BUD LANDIS

Navy Lab Will Make Rockets . . .

TRONA—Construction of a new \$5,500,000 research laboratory at Naval Ordnance test station at China Lake, now underway, is expected to be completed within next nine or ten months, Lieut. T. P. O'Brien, in charge of construction, announced in February. Laboratory will house facilities capable of turning out 500 rockets daily. Influx of construction workers is expected to reach peak of estimated 500 men next August.

Incorporated area of Indio, according to recent survey, shows population of 3030; Greater Indio has between 5000 and 6000 population.

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Desert Homes



A secluded community of homes for a select clientele; highly developed, landscaped and with all utilities; surrounded by desert with mountain views on all sides. Here's healthful desert sunshine at its best; just 12 miles south-east of Palm Springs on Rt. 111.

HOMESITES from \$695 to \$3000
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206 W. TENTH STREET PHONE 246
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THE HEART OF ANTELOPE VALLEY
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WILD FLOWER SEEDS

Attractive SOUVENIR GIFT package
1 packet 20 varieties
1 packet each 3 rare varieties

ALSO: Beautiful 4 1/2 x 5 1/2 hand colored photo of floral landscape, nice for framing, 6 views available—mailed to you in plain package for re-mailing—postpaid \$1.00.

S. S. LAWRENCE—SEEDSMAN
P. O. Box 408 Las Vegas, Nevada

Power Company Will Expand . . .

BLYTHE—California Electric Power company plans to spend an estimated \$250,000 for transmission line and rural electrification in Blythe and Palo Verde valley, it was revealed in February by R. H. Knaggs, resident manager of the company.

Next Riverside County Fair and Date festival will be held in Indio in February, 1947.

Idyllwild resort holdings were sold in February by Dr. Paul D. Foster, Los Angeles, to Glen Brubaker, superintendent Hemet Packing company; Jerry Johnson, Idyllwild real estate broker, and Al Firrell of Long Beach.

Purchase of 800-acre Arrowhead Lake and 3200 acres of surrounding mountain land by Los Angeles Turf Club Inc., operator of Santa Anita Park, was announced recently. Included in purchase are several hotels.

Negotiations were completed February 17 for use of Unit B of Torney General Hospital by Palm Springs Community Hospital, according to Florian Boyd, president of hospital association. Unit B is the former El Mirador hotel, taken over by army during the war.

NEVADA

Desert Admirals Need a License . . .

BOULDER CITY—If you're one of those desert admirals—with a boat on Lake Mead—don't be surprised if a man in uniform taps you on the shoulder and asks to see your license. It'll be a national park service ranger, who issues licenses for all boats on the lake, from kayaks to speedboats. Anything without a motor, such as a sailboat or rowboat, costs \$1. Power craft license costs according to length—\$2, up to 15 feet, \$3 from 15 to 20 feet, \$4 from 20 to 25 and \$5 for all more than 25 feet. Rangers say there are about 300 boats now on the lake. Licenses may be obtained from park rangers at Boulder Beach, Las Vegas Wash and Overton.

USS Nevada's Silver "Comes Home"

WINNEMUCCA—Silver service of the 30-year-old battleship Nevada, to be used in atomic bomb experiments, will return to its home state as a loan from the navy until another U.S.S. Nevada is built. It was through former Senator Tasker L. Oddie's efforts that the Tonopah mines gave 5000 ounces of silver for the service in 1916. Set was made by jewelry firm of Gorham and Co., New York.

Guy Edwards, for ten years superintendent of Boulder Dam recreational area, recently returned to his duties from war service.

Roy Rogers Starts Guest Ranch . . .

LAS VEGAS—Roy Rogers, Republic studio western star, announced February 25 he will build the nation's most elaborate residential guest ranch near this "last frontier town of the West." In addition to a large string of palominos, property will be headquarters for Roy Rogers Rodeos. Stocked on the ranch will be the greatest amount of rodeo stock in the world, according to Philo J. Harvey, Beverly Hills attorney. Rogers ranch will include three parcels of land in the Paradise valley section, with 400-acre Warm Springs ranch the largest parcel. Construction on the project was expected to start soon.

Briggs is New Land Use Chief . . .

LAS VEGAS—Heading newly formed division of land use and settlement, Ian A. Briggs has been added to bureau of reclamation's region III staff with headquarters in Boulder City, according to announcement in February by E. A. Moritz, regional director. Briggs, member of University of Arizona staff for 22 years, will supervise the agricultural and land use work of the bureau's irrigation projects in region III, and will direct bureau's settlement program in region III, assisting veterans and others in settling on public land when made available for homestead entry. Areas chiefly affected by this administration are Coachella and Imperial valleys in California, and Gila project east of Yuma, Arizona.

"Pizen Switch" More Beautiful? . . .

YERINGTON—Some of the residents here believe their town will be more popular with tourists if they change its name back to the original "Pizen Switch," reminiscent of its importance as a cow town since 1860. If there is enough community approval it is planned to ask next session of state legislation to make the change.

SCENIC GUIDES

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FIRST EDITION SCENIC GUIDE TO NEVADA

More than 500 places to see in Nevada, with complete information, photographs and detailed maps.

A Hundred Travelogues in
One Handy Book.

Guides to other Western States
will follow soon.

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— Send for Yours Today —

Pioneer Dies Suddenly . . .

LAS VEGAS—Dr. William S. Park, one of the first professional men to come to Las Vegas, a civic leader and archeologist, died February 24 after being stricken during a field trip with Southern Nevada mineralogical society about 15 miles east of Boulder dam. His interest in archeology started when Dr. Harrington of Southwest Museum, Los Angeles, came to Las Vegas to excavate Gypsum Cave, and continued until he became an authority on the prehistoric Basketmaker tribe who inhabited the Muddy and Virgin river valleys, and helped excavate the now submerged "Lost City."

Toiyabe is Largest Forest . . .

RENO — When a public land order combined Mono and Toiyabe national forests under the name of Toiyabe, it produced the largest forest in the United States, Fred H. Kennedy, district supervisor, says. As large as Connecticut and five times the size of Rhode Island, the new Toiyabe forest covers 3,300,000 acres of land in Nevada and California. Main portion of the district lies down east slope of the Sierra Nevadas from just north of Reno, south to the Bridgeport, California, region. Other preserves are in Smoky mountains of central Nevada and in Paradise valley area of northern Humboldt county.

Nevada's state fair will be resumed in 1946 on August 31, September 1 and 2, at Fallon.

New census bureau estimates show civilian population of Nevada as 135,689. Civilian figures for other Southwest states are: New Mexico, 490,302; Utah, 591,910; Arizona, 589,221.

NEW MEXICO

Indian Ceremonial Dates Set . . .

GALLUP—Inter-Tribal Indian Ceremonial will return this year to a seven-program four-day schedule instead of the more abbreviated program followed during the war years. Dates for the celebration will be August 15-18 inclusive. J. M. Drollet is new president of the ceremonial association. Other officers are W. T. Mullarky, vice-president; Harry Dunbar, treasurer, and M. L. Woodard, secretary.

New Rio Grande Bridge Slated . . .

LAS CRUCES—Announcement was made in February that the secretary of state has authorized a new bridge across the Rio Grande at Anthony. Construction of bridge awaits congressional approval of an item already in the budget.

Mayor Wants All-Spanish Streets . . .

SANTA FE—Mayor Manuel Lujan wants all streets in Santa Fe to have Spanish names. "Santa Fe has a thriving tourist business," the mayor said, "and I believe the designation of the streets to show Santa Fe's Spanish origin would increase their interest."

Desert Rocket Tests Scheduled . . .

ALAMOGORDO—Tests to determine whether "space ships" can be made a reality will be conducted by the army this summer, according to an army officer. Fifteen Nazi V-2 rockets, assembled from parts found or captured in Europe, will be fired as part of the tests. "Ordnance men have expressed the view," the officer said, "that space ships, traveling high above the stratosphere, are not an impossibility. And further light on this view may be given this summer when V-2 rockets are launched from the ordnance proving ground at White Sands, New Mexico." The rockets are expected to reach a minimum height of 30 to 35 miles in the air.

Norman Shenk of Santa Fe has been selected to head New Mexico council of chambers of commerce for ensuing year.

Roy Norton, Roswell hotel man, in February announced plans for construction of an eight-story 135-room hotel to cost \$500,000.

Western fun and
desert sun at...

LAS VEGAS
NEVADA

Las Vegas, the last frontier town of the Old West, is a playland that's different. Here, there's gay night life...dancing and floor shows. And there's an endless choice of outdoor sports. Fishing, swimming, boating at Boulder Dam's Lake Mead—mountain climbing on 11,910 ft. Charleston—riding, golfing and hiking on the desert. All this fun lies directly on highway, rail and air Coast to Coast routes.



TWO BRONCS AND
A FILLY



For information
and rates write to
Chamber of Commerce,
Las Vegas, Nevada

April in Albuquerque

Sunshine 76% of Possible Amount
15 Clear Days-10 Partly Cloudy-5 Cloudy



Daytime Temperature 69.7°
(Average Daily Maximum)

Nighttime Temperature 40.7°
(Average Daily Minimum)



Rainfall .68 Inches
Average Daily Humidity (SRM) 27%

Albuquerque is still so overcrowded that we are urging everyone to WAIT a while before coming to enjoy our climate, but we will be glad to send our free booklet to help you plan to come later. Use the coupon below.

ALBUQUERQUE CIVIC COUNCIL
Dept. D 5, Albuquerque, New Mexico
Please send your free booklet to:

Name.....
Address.....

Stove Pipe Wells Hotel

offers you

**Comfort and Relaxation in the
Heart of Death Valley.**

**EUROPEAN PLAN — DINING ROOM
BAR**

**MODERN ACCOMMODATIONS
HOTEL AND COTTAGES**

"The Oasis of Death Valley"

OWEN MONTGOMERY, Manager

DESERT SOUVENIR

A four-color picture suitable for framing shows the Covered Wagon Train of '68 crossing the desert; now on display at Knott's Berry Place, Highway 39, two miles from Buena Park out of Los Angeles 22 miles. This remarkable oil painting 20x60 feet took over one year to complete. A copy will be mailed you together with the special souvenir edition of our Western Magazine jam-packed with original drawings and pictures and complete description of Ghost Town and Knott's Berry Place. Both will be mailed with current issue of our 36-page magazine for 25 cents postpaid in the U.S.A. Thousands have already viewed this great work of art and acclaim it a wonderful contribution to the history of the West. Admission is without charge whether you stay for the chicken dinner and boysenberry pie or not. Send 25 cents for all three: picture, souvenir and current issue to Ghost Town News, Buena Park, California.

The SHANNON Line

**LONG WAVE
ULTRA VIOLET LAMPS
High Power—High Brilliance
For Spectacular Display**

—also—

**Fluorescent and Phosphorescent
Materials of All Kinds
"Shannon Glow"**

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NON-RATIONED . . .

**Basketball,
Bowling,
Baseball
SHOES**

VAN DEGRIFT'S

**717 W. 7th Street
LOS ANGELES, CALIFORNIA**

Hotel El Rancho, Gallup resort hotel, in February was purchased from H. E. Zimmerman by Joe Massaglia Jr. of Albuquerque, and W. D. Owen of Amarillo, Texas. Extensive remodeling is planned.

• • •

Fidel brothers, owners of hotels in Albuquerque and Santa Fe, have purchased the 75-room Meadows hotel in Las Vegas.

• • •

Shipments of cattle out of New Mexico during 1945 totaled 829,069 head, compared with 744,204 in 1944.

• • •

UTAH

Anybody Know About Award? . . .

WHITE ROCK—Harvey Natchees, 25 year old Ute Indian who was the first American soldier to enter Berlin, wonders what became of that award he thought had been posted for the first Yank who entered the Nazi capital. Although he has been home since January he has heard nothing more of the supposed award. In the meantime he has taken up life as a chicken rancher, with his wife Clara and 2-year-old daughter Maxine, after doffing the uniform he had worn for three years. "While I had that on," he said, "I was somebody. An American soldier. Proud to be one. Now I'm just another Indian. I was thinking about settling down outside the reservation but then I decided my real place is with my people." While overseas, Natchees won the silver star, bronze star and purple heart with oak leaf cluster for action as advance scout in Third armored division. . . So if anyone knows about that award, just notify Natchees.

Monument Plans Near Completion

SALT LAKE CITY—Formal permission from war department for use of a 50-acre triangular tract at southeast corner of Fort Douglas military reservation as part of the projected "This Is The Place" state park was received in February by John D. Giles, executive secretary-treasurer of the state pioneer monument commission. Plans now are virtually completed by state road commission for building roads to monument site, Giles stated. Arrangements also have been completed for quarrying the granite for the monument. The historical park will have a total of 577 acres.

Days of '47 to Start July 15 . . .

SALT LAKE CITY—Ray Van Noy, city license inspector, has been appointed new secretary of Days of '47 Inc., the organization which will stage Utah's historical celebration in Salt Lake City July 15-24, inclusive. Events include crowning of the queen, pioneer ball, rodeo, LDS tabernacle choir concert, parade, pageant in University of Utah stadium.

Postwar Highway Budget Okayed . . .

SALT LAKE CITY—Utah's first post-war road budget calling for expenditure of \$5,193,079, exclusive of federal matching funds, was approved February 27 by state road commission. Predicated on estimated revenue of \$4,500,000 during 1946 from gas and motor vehicle taxes and a war-built reserve, the budget provides \$1,973,308 to match approximately \$5,500,000 in federal funds.

New Outdoor Group Organized . . .

PROVO—Dr. George H. Hansen, head of Brigham Young university geology department, in February was elected chairman of the newly formed Central Utah Outdoor association. Projects of the group include development of Timpanogos, Provo canyon and other central Utah outdoor attractions.

• • •

Outdoor scenes for Harvey Girls, MGM picture, were filmed in Monument Valley.

Your Next Outing Trip to the Desert

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THE *Desert* MAGAZINE
El Centro, California

GEMS AND MINERALS

ARTHUR L. EATON, Editor

OVER 500 ATTEND BLYTHE'S FIRST ANNUAL MINERAL SHOW

By LOUISE EATON

Desert gem and mineral society, Blythe, California, successfully staged its first mineral show February 16 followed by a field trip the next day. About 500 signed the visitors' register, but many missed the book. Guests came from Maine, Montana, Washington, Oregon, Texas, Arizona, Michigan, Alaska as well as from California points. Orange Belt society of Riverside-San Bernardino district and Imperial Valley gem and mineral society attended en force.

Local collectors, dealers and visitors put on an interesting and creditable display. Norman Brooks, president of the group, showed geodes, polished nodules, slabs and cabochons. Glenn Vargas, secretary, collected his display within a hundred mile radius from Blythe. He had a large amethyst filled geode, calcite crystals, many geodes, vanadinite, and some striking specimens of specular hematite crystals on clear quartz crystals, also a huge geode with concealed lighting revealing its sparkling beauty. Bert Cohoon showed fossil coral, miniature geodes, phantom crystals and a herkimer diamond in matrix.

Mrs. Collis Mayflower exhibited a huge pyrite cube, petrified wood and amethyst crystals; Louis Favret, Indian relics; James R. Haslam, Indian relics and rock specimens; Dale Braman, ores and oddities; Bobby Grant, aged 8, box of mixed rocks; Guy Emery, local dealer, Montana agate and other gem materials. Mr. Emery constructs specimen kits for collectors and guarantees visible gold in the gold ore included. W. A. Waters showed turquoise from his mine at Crescent, Nevada.

Out of town exhibitors were Sam Robinson and Arthur Eaton, Imperial Valley gem and mineral society; Dr. W. F. Fox, Orange Belt; dealers Earl Martin, Ann Arbor, Michigan; Chuckawalla Slim, Palm Springs; L. C. Hockett, Portland, Oregon.

Fluorescent minerals were a striking revelation to those seeing them for the first time. Stanley Ragsdale, Desert Center, and Norman Brooks were in charge of the fluorescents.

Thirty-five cars went on the field trip to Houser geode bed. The 150 rockhounds dug like Yuxon prospectors, finding many good geodes and nodules besides a material termed pastelite, a common opal. Glenn Vargas discovered a large amethyst geode.

Officers of the Blythe group are: Norman Brooks, president; Dale Braman, vice-president; Glenn Vargas, secretary. His address is care of County Health Office, Indio. Meetings are held second Mondays at the Brooks home.

MOJAVE MINERAL SOCIETY INCORPORATED IN FEBRUARY

Attainment of a long visioned desire to become a corporate body was realized at February meeting of Mojave Desert Gem and Mineral society when Chairman Cecil Goar presented the membership with papers of incorporation. The society had been aided by Orlin J. Bell, of East Bay Mineral society, Oakland.

Under incorporation the society may buy, sell, exchange, use, lease or encumber any and all descriptions of real and personal property. It also may obtain and manage a museum in connection with the display of old West relics which are so numerous in the area, as well as the display of mineral and rock specimens prepared by the local lapidists.

PHOENIX SOCIETY HOST TO ROCKY MOUNTAIN FEDERATION

Mineralogical Society of Arizona was host to Rocky Mountain federation of mineral societies at its second annual meeting in Phoenix, March 7-8-9. Odd Halseth, superintendent of parks, made it possible for visiting rockhounds to camp in South Mountain park. Park facilities also were made available for meetings and exhibits. Program was as follows:

Thursday, March 7:

2:00 to 5:00 p. m.—Registration, Administration building, South Mountain park.

8:00 p. m.—Regular meeting of Mineralogical Society of Arizona, Theater building, South Mountain park. Greeting. Introduction of visitors. President A. L. Flagg's address: Collecting in Arizona. Reception and exhibit.

Friday, March 8:

9:00 a. m.—Business meeting of Federation, Theater building.

10:00 a. m.—Illustrated lecture, Geology of the Moon, Prof. J. J. Hayes, University of Utah, president Mineralogical Society of Utah.

2:00 to 5:00 p. m.—Tour of Valley of the Sun, J. O. Jackson, leader.

3:00 to 6:30 p. m.—Mineral Mart.

7:00 p. m.—Annual banquet at Hideout.

8:30 p. m.—Evening meeting, Park theater building. Motion picture: Boat trip down the Colorado river, Barry Goldwater.

Saturday, March 9:

All day field trip. Leader, Barry Storm.

CALIFORNIA FEDERATION TO MEET AT GLENDALE IN JUNE

Annual convention of California federation of mineralogical societies will be held June 14-15-16 in Glendale civic auditorium, 1401 No. Verdugo Road. In anticipation of record breaking attendance the traditional two day session has been extended to three days. Every effort is being made by committees of the Mineralogical Society of Southern California, Pasadena host organization, to provide ample time and space to insure complete enjoyment of the long postponed event.

Commercial exhibitors should make immediate space arrangements with W. J. Rodekohl, 304 Westminster avenue, Alhambra. These displays should be installed by Thursday June 13. Non-commercial and competitive exhibitors have until Friday evening if necessary to assemble their material. They should register at once with E. W. Chapman, 1934 Mill Road, So. Pasadena. Further information may be obtained from secretary of the Pasadena group, Miss Betty Holt, 223 E. Glenarm street, Pasadena 5.

Banquet will be held Saturday evening June 16 at Los Angeles Breakfast Club, 3201 Los Feliz boulevard, just east of Los Angeles river bridge. Tickets will be available through members at an all inclusive price of \$2.25 per plate. Capacity has never equalled demand for this event.

Jack Streeter, president of Mineralogical Society of Southern California, Pasadena, is in general charge of convention plans. He will be assisted by the following committee chairmen: Ernest Chapman, competitive displays; W. J. Rodekohl, commercial displays; H. G. Kirkpatrick, lapidary demonstrations; Ralph Dietz, auction; H. S. Hill, program; L. W. Vance, finance; P. E. Linville, invitations; Mrs. Mary Wheeler, reception; Edwin Van Amringe, publicity director.

KENNETH McMAHAN, FRIEND OF ROCKHOUNDS, DIES FEB. 1

The sudden death of Kenneth B. McMahan of Jacumba, California, February 1, will come as a shock to friends and rockhounds in all parts of the U. S. A native of Indiana, he came many years ago first to San Diego, then to La Mesa. About 1926 he moved to the desert east of Yuma. Six years ago he moved to Jacumba to open the Indian Trading Post.

He was friend and confidant to prospectors, miners, travelers and dealers all over the Southwest. He is survived by his wife, Louise, and son, Robert B. McMahan.



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GILDE GEM CUTTER. We now offer this compact portable outfit to the home cutter. Write for details and new catalog listing over one hundred varieties of rough. Also all kinds of supplies. Gem Exchange, Lake Bluff, Ills.

HARD BLUE AND GREEN copper ores. Some parts of this rock are real gem quality and works out as beautiful as turquoise and malachite. Any of it will make the highest grade of ornaments. Five pounds \$5.00; two pounds \$3.00. Coconino Trading Post, Box 121, Wickenburg, Arizona.

ARIZONA BLUE-ROSE, or pink banded agate. 50c per lb. Postage extra. Dealers, special rates. Maryann Kasey, Box 230, Prescott, Ariz.

LARGE ASSORTMENT of good quality gem stone. Prices in the rough run from \$2.00 per pound up. Sawed slabs assorted \$3.50 per pound up. One pound of slabs will cut dozens of excellent cabochons. Selection of cabochon blanks sent on approval priced from 15c up. Custom silversmithing and lapidary work estimates on request. Sterling silver sheet and wire in small quantities. I purchase good quality gem stone in the rough. Correspondence invited. Satisfaction or money-back guarantee. Paul F. Fryer, Walpole St., Dover, Mass.

COLLECTOR'S SPECIAL—Glacier Polished Granite—Rough broken specimens—one face polished by glacial action during California's Ice Age thousands of years ago. Approximately 6 to 10 square inches of polish: \$5.00 each postpaid. A few outstanding larger specimens \$10.00 each. Fragments: 2 to 4 sq. inches \$1.00 each. Sierra Cedar Gift Shop, Twain-Harte, Calif.

BARGAIN ASSORTMENT NO. 6—One cutting chrysocolla slab. Enough Mexican turquoise to make 8 cabochons (blue green). One fine slab snowflake obsidian. One slab fine stripes silica onyx, for polished slab or cabochons. One pound desert jasper. Two fern agate nodules, small. 3 petrified wood chunks with moss. One obsidian bomb (Apache tears). All for \$3.00 plus postage on 6 pounds. West Coast Mineral Co., Post Office Box 331, La Habra, Calif.

BRACELETS and RINGS—Matched sets in unusual quality stones of Montana Moss Agate, Arizona Picture Wood, Flowering Obsidian, Turquoise, Chrysocolla or Sagenite. **HAND MADE**, individually designed mountings of **HEAVY STERLING SILVER**, by skilled Navajos. Selling at a fraction of the price asked by retailers. Must be seen to be appreciated. Sets at \$16.50 to \$45.00 plus federal and state tax. As always, your money back if not satisfied. Can furnish prices on practically every known faceted gem stone. **THOMPSON'S STUDIO**, 385 West Second Street, Pomona, Calif.

TEXAS BLACK AGATE: Fluorescent—Gem Quality. A variety of types, including nodules, finely banded; some true onyx banding, and a few of solid jet-black that should cut and polish similar to jade. Fluorescence is of intense, rich green, the banding appearing vividly under U.V. light, thus producing cabochons of unique effect. 1 lb. pkg. \$3.25 Postpaid. Frank Duncan and Daughter, Box 63, Terlingua, Texas.

ROCK COLLECTORS ATTENTION. When you visit the Desert this spring look for the **ROCKOLOGIST**, one mile east of Cathedral City, California.

TWO 3x4 Fossil Pieces \$1.00, Ten pounds Geodes \$4.75. Bryants Rocks, Rt. 1, Alton Station, Ky.

MINERAL COLLECTION for sale, largest in Utah, \$1000. Hans Anderson, St. George, Utah.

MINERALITE: For best Ultra-Violet fluorescence. Every rockhound should have one. Every prospector of minerals needs one. Send today for free catalog with natural color illustrations and valuable information. Gaskill, 400 North Muscatel, San Gabriel, Calif.

PETRIFIED WOODS: 50c to \$1.00 lb. Eden Valley limbs 25c to \$2.50. Cabochon material 50c to \$1.00. Sawed nodule halves 50c up. Postage extra. Mrs. E. Cailland, 3642 Gardena Ave., Long Beach 7, Calif.

IN STOCK for immediate delivery. Felker Di-Met Saw Blades, 6" \$4.60, 8" \$6.65, 10" \$8.70, 12" \$10.75, 14" \$14.80, 16" \$16.85. Give bushing size. RX Lapidary all in one unit \$125.00 F.O.B. Torrance, Calif. Grinding wheels, Sanding Cloth, Cerium Oxide polish powder \$2.50 per lb. Residents of Calif. should add 2½% State Sales Tax. A. L. Jarvis, Route 2, Box 350, Watsonville, Calif. Closed on Wednesdays.

PETZITE (Silver-gold telluride). Lustrous masses of this rare mineral in matrix. Excellent specimens for \$5.00, \$7.50 or \$10.00, according to richness. Postage extra. H. Goudey, Box 529, Yerington, Nevada.

OLD TREASURE MAPS interpreted \$10.00. New Mexico moss, mottled, ribbon agate, \$1.00 per lb., red, peach and carnelian \$4.00 per lb., no matrix. Flaming Arrow, Lake Arthur, New Mexico.

NEPHRITE JADE in blank cabochons, black, olive and dark green, 16x12 mm \$1.00 each. Rare quality apple green 16x12 mm. 18x10 \$2.50 each. Postpaid. Satisfaction guaranteed. Write for prices on quantity and finished cabochons. J. W. Carson, Bridgeville, Calif.

WHOLESALE ONLY: Lazulite, Agate Wood, Nevada Agate, Nevada Variscite, Obsidian, black, Obsidian, black and red. Amygdaloids, Carnelian, Travertine, Death Valley Onyx, Lone Mt. Onyx, Paymaster Onyx, Death Valley Curly, Box 495, Goldfield, Nev.

MINERAL SPECIMENS of all kinds. Collections for museums and students. Micro-mount mineral collections. Rocks and minerals by the pound or by the specimen for display, study and research. H. Goudey, Box 529, Yerington, Nevada.

WANTED: TO BUY, sell and exchange specimens outstandingly rare and beautiful. Sam Parker, 2160 East Van Buren, Phoenix, Ariz.

INDIAN RELICS, Curios, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons, Catalogue 5c. Lemley Antique Store, Osborne, Kansas.

BARGAIN BUNDLES—Assorted rough cutting material—Agates, Jasper, Geodes, Variscite, Turquoise, Chrysocolla, Petrified Wood, Obsidian, etc., 5 lbs. \$3.50, 10 lbs. \$6.00, 20 lbs. \$10.00. Assorted sawed cutting material—20 sq. in. \$3.50, 50 sq. in. \$7.00, 100 sq. in. \$12.00. Agate, Jasper, Chrysocolla, Variscite, Turquoise, Wood, Rhodonite, Obsidian, Opal, etc. Please include postage. Send for price list of cutting material, minerals, specimens, jewelry, etc. John L. James, Tonopah, Nevada.

HAVE YOUR PET CABOCHON set in silver ring, pin or bracelet by a master silversmith. Sunshine Gem Co., 315 E. Saxon Ave., Wilmar, San Gabriel, Calif.

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MONTANA MOSS AGATES in the rough for gem cutting, \$1.00 per lb. plus postage. Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, California.

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AGATE SLABS ON APPROVAL. Brilliant colors, exquisite patterns, plume, flower and moss. Choice gem quality for jewelry making. End pieces and slabs for outstanding cabinet specimens and colorful transparencies. Send \$10.00 deposit for approval selection and state types desired. Mae Duquette, 407 N. Muscatel, San Gabriel, Calif.

JUST RECEIVED a lot of fine Amazonite crystals from eastern Colorado. A few clusters but mostly singles. \$10c to \$1.00. Colorado Gem Co., Bayfield, Colo.

MINERAL SETS—24 Colorful Minerals (identified) in 1x1 compartments—Postage paid, \$3.50. Prospector's Set of 50 Minerals (identified) in 1x1 compartments in cloth reinforced sturdy cartons, Postage paid \$5.75. Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, Calif.

WANTED TO BUY, or trade for Franklin fluorescent minerals. Western States crystallized or rare minerals. Also iron meteorites. John S. Albanese, P. O. Box 536, Newark, New Jersey.

AMONG THE ROCK HUNTERS

Seattle Gem Collectors club, at their February 19 dinner meeting in chamber of commerce building, heard Dr. Howard Coombs, geology department of University of Washington, discuss formation of Cascade range. He made special reference to the recent northwest earthquake. His talk was illustrated with films. There were 93 members present.

Jack Streeter, president of Southern California Mineralogical society, was scheduled to talk on collecting minerals in Brazil at March 8 meeting of Pacific Mineral society, Los Angeles. Rare minerals in the Dana series from 30 to 60 were to be displayed at the meeting by Mr. Eales and Dr. Foster.

San Jose Lapidary society has chosen the following officers to serve for the ensuing year: Russell Grube, president; R. M. Addison, vice-president; Charles Murphy, secretary-treasurer. Installation was to take place at March 5 dinner meeting. De Anza hotel in San Jose. Mr. Maudens will talk on polishing, to complete the first series of talks on cabochons.

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SOUTHERN NEVADA SOCIETY PLANS ACTIVE YEAR

Mineralogical Society of Southern Nevada held its first postwar meeting February 4 in Las Vegas high school. W. M. Brown, Las Vegas, was elected president and Paul Mercer, U. S. bureau of mines, Boulder City, secretary-treasurer. During war years Dora Tucker, Las Vegas, acted as secretary and it is due to her untiring efforts that interest in the society kept alive. John Hilton and Harlow Jones were visitors. Hilton plans an article for Desert magazine on semi precious gemstones of Clark county.

Club hopes that Mr. Carpenter, vocational director, bureau of mines at University of Nevada, will resume his prospector classes in the southern localities. Classes usually last six weeks and deal with geology, mineralogy and blowpipe analysis.

The society plans two meetings a month with one or more field trips: first Mondays at Las Vegas and third Tuesdays in Boulder City. All amateur geologists, mineralogists and rock-hounds are invited to attend meetings and participate in field trips.

Western Lapidary and Jewelry society recently was organized, with following officers: Cash Ferguson, president; Eric Stone, vice-president, and Helen Butler, secretary. The new society will meet 7:30 p. m. on first Wednesday of each month at Roscoe Recreation Center, 8133 Vine-land avenue, Roscoe, California. Visitors are welcome.

During months of March and April, Stockton and mineral club is holding exhibit of specimens at the local museum and art gallery, with demonstrations of gem cutting.

A description of Peru and its mining districts was given by T. E. Harper in a talk at the February meeting of Yavapai gem and mineral society, Prescott, Arizona. A. De Angelis gave some new and interesting information about gem stones and their making. Outstanding exhibits were gems by De Angelis, prehistoric fossils from Colorado by Shattuck Jones, synthetic jet and malachite by J. Bryant Kasey and fluorescent mineral display by Moulton B. Smith.

Kernville (California) mineral society elected the following officers at January 14 meeting held at the home of Mrs. Ida Pascoe: Pearl Bechtel, president; Ida Pascoe, vice-president; Ena Dumke, secretary-treasurer. Meetings are held third Mondays at homes of members in Kernville, although membership is drawn from Glennville also. Secretary Ena Dumke lives at the summit of Greenhorn mountain where at this season the only means of transportation is tractor or snowshoes.


Buffalo museum of science, Buffalo, N. Y., has invited Mineralogical Society of Arizona to exhibit in the museum its circulating collection which was part of the 1944-45 project undertaken by Arizona federation.

Leon Dial, retiring president of Sequoia mineral society who would automatically become Federation director, resigned that position on account of press of business. Carl Noren was unanimously elected to the post.


P. M. Kerridge of Fullerton, California, was February 11 speaker for Mineralogical Society of Southern California, Pasadena. Mr. Kerridge is an authority on the manufacture of synthetic gem stones. Field trip was planned to Cinco for feldspar crystals. Lillie Rhorer, secretary for the past year and a half, resigned and board of directors appointed Betty Holt to complete the term.

Dr. Zangerl of Chicago Museum of Natural History lectured at February 2 meeting of Marquette geologists on formation of the Alps.

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Aquamarines—10x8, 12x10, 16x12 m/m and larger sizes, \$2.00 per carat, also round cuts.

Ceylon Sapphires—Blue, Golden \$2.00 per carat.

Ceylon Red Garnets—\$5.00 per dozen.

Ceylon Hessonite Garnets—\$1.00 per carat.

Brilliant Cut Sapphires—\$5.00 per carat.

Carved Sapphires and Rubies—\$3.00 per carat.

100 Carved Obsidians—\$40.00.

Ceylon Zircons—\$1.00 per carat.

Rare Chrysocolla—\$10.00 per 100 carat lot.

Moonstones—\$35.00 per 100 carat.

Rare Green Garnets—\$5.00 per carat.

Moss Agates—\$6.00 to \$12.00 per dozen.

Rare Cameos of all kinds.

Optical Prisms—1¾ inch, \$1.50 each.

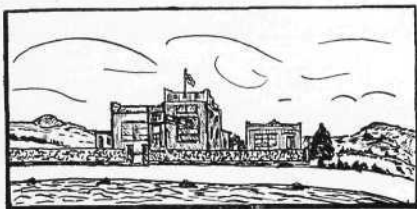
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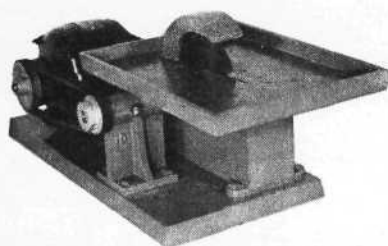
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Special — Colorado Plume, Agate, sawed slabs from \$1.00 to \$30.00, on approval. New find, none better.

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6" HIGH-SPEED TRIMMING SAW. All cast metal. No wood. This saw saves time and material. Saw operates at 2000 R.P.M. Priced at \$47.50 without motor, F.O.B., Los Angeles, Calif. This price includes saw-blade, belt and pulley to give you the correct speed. Requires 1/4-horse motor. Shipping weight approximately 60 pounds.

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DESERT ROADS FOR ROCKHOUNDS

Mojave Desert Gem and Mineral society has compiled following information on road conditions in Mojave desert as of February 17, 1946:

Black Mountain, Opal Mountain, Harper Lake district—closed areas.

Bicycle Lake, Camp Irwin—road to camp in excellent condition, area open to rockhounds who must check in at the military post. No traffic beyond the camp limits to civilians.

Goldstone, Copper City, Leadpipe Springs, Eagle Crags, One Willow Springs, Hidden Springs, Leach Springs—closed areas.

Fossil bed, Inscription Canyon areas—road not passable account water washed and sandy.

Mule Canyon—road good to south entrance; dangerous but passable to north entrance; beyond to palm wood location, passable with caution, rocks and sand and unimproved road.

Calico, Odessa, Doran Canyons—roads passable but surface generally rough.

Coyote Lake, through Mule Canyon or from beyond the checking station—road passable, some sand, high centers at points.

Lavic, Mt. Pisgah, Amboy Crater, Mitchell's Caverns, Newberry Springs, Newberry Mountains, Hector—all excellent roads, main highway 66.

Afton Canyon—roads not passable.

Chuckawalla Slim is proudly displaying two fossil clam shells completely opalized. The replacement is excellent quality fire opal—treasures for any rockhound's collection.

Eighteen members and friends from Imperial Valley gem and mineral society visited Desert gem and mineral society display at Blythe, California, February 16 and enjoyed the conducted field trip to Houser geode beds February 17. This field covers 25 square miles and produces many beautiful nodules and geodes, some lined with amethyst crystals as well as red, orange and clear quartz.

Lloyd Eller, engineer, told Los Angeles mineralogical society at January meeting about his trip in 1932 from India to Los Angeles. Travel in Asia in those days was hazardous—sometimes gas stations were 500 miles apart, and roads questionable.

San Jose Lapidary society is initiating a plan which should be a good one for other gem clubs. Members are asked to write a note on any locations of cutting material, stating owner of the property, location, approximate mileage, type of material. This information will be kept in a card file for convenience of other members for individual field trips.

Stockton gem and mineral club, at a recent reorganization meeting, elected the following officers: Harold Rimer, president; Ralph Saxton, vice-president; Mrs. George Chalker, secretary-treasurer. Harry Foulds was speaker at this meeting, with his subject the Virgin Valley opals. Meetings are held first Friday evening of the month.

A. F. Combs, member, talked on geological history of the Grand Canyon at February 5 meeting of Orange Belt mineralogical society held in San Bernardino junior college. Combs showed interesting pictures of the canyon. Attendance prize of two geodes donated by president Burk went to member Appleford. Several members of the society attended the mineral show of Desert gem and mineral society at Blythe February 16-17 and camped overnight at the Houser geode beds.

J. Lewis Renton, vice-president Northern California mineral society, San Francisco, showed his beautiful color slides of thunder eggs, agates and minerals at February meeting of Monterey Bay mineral society. He called attention to characteristic coloring and structure typical of specific areas. The group plans a raffle of donated specimens at each meeting to swell the treasury. Membership has reached 68. A. L. Jarvis, Watsonville, was elected federation director. Hugh Brown, representative of Western Mineral exchange, talked briefly on American mineral guide. He showed a fluorescent display and cutting material.

February Pseudomorph, bulletin of Kern county mineral society, Bakersfield, California, discusses tellurium and tellurium ores. It states that tellurium is one of the rare elements usually classed as semi-metal. It is so soft that it can be scratched with a finger nail. It is used to give glass a reddish tint; can be alloyed with zinc and aluminum. It is claimed that such an alloy is superior to aluminum in tensile and torsional strength. These economic uses, however, are so insignificant that at present tellurium has small commercial value.



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NEW ISLAND ERUPTING IN PACIFIC OCEAN

Lt. Daniel J. Ransohoff, U.S.N., flag secretary of the Yokasuka naval base, reports that an entirely new island is appearing in the Pacific ocean about 200 miles south of Yokasuka. It is like a rumbling, steaming monster of the deep. At the end of two weeks of eruption it was about 600 feet long, 500 feet wide and 50 feet high.

Great clouds of steam and ash rise in billowing waves above the new island. Underwater explosions of steam shake the entire area spasmodically. White hot boulders break off from the new land mass and drop with a hiss of steam into the ocean.

"It is like some monster of the deep turning over in steaming water," said Ransohoff. He indicates that there are no other nearby islands, and that there is no record of any other island existing there in the past. Many officers are photographing this phenomenon and are speculating as to whether this may or many not be connected with recent Japanese earthquakes.

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Cogitations . . .

Of a Rockhound

By LOUISE EATON

Sumthing oughtta be dun about unnecessary smashin uv good specimens in fieldtrippin territory. Th' fella that wants only sagenite leaves shattered geodes an' agate chips behind—th' geode nthusiast takes only crystal filled nodules—th' picture agate adherent duz sum mor rock crackin an' discardin. Result is that th' ordinary run-uv-th-mill - mutt - rockhoun has only rejected scraps to choose frum.

. . .

Didja ever rummage in a mama rockhoun's purse? Surprisin contents, sumtimz!

. . .

Rockhouns on a field trip shure has diffrent eatin habbits frum what they shows at home. They'll eat most anything—cooked enyhow. Brekfust at home wuz maybe coffee 'r oranj juice an' toast. But after a nite under th' stars a fella'll eat ham an' aigs, fried spuds, canned peeches, toast, coffee, a few uthor odds an' ends, an' mor coffee. His capacity is practically unlimited.

. . .

Yu can just feel sum things yu duz takin years 'r at least hours off uv yur allotted 3 skore an' ten. Wun effort uv doin what yu must, not what yu wants, wears yu out mor than yu can recuperate in 2 nites sleeps. But fieldtrippin works just opposite—no matter how menny miles yu tramps to find um, yu're unweary an' happy doin as yu pleez. Contentment shure is an important factor in longevity.

Robert D. Jones, field representative of Libbey Owens Ford glass company was scheduled to talk about glass at February 21 dinner meeting of Los Angeles mineralogical society. He planned to tell something of the history of glass, its sometimes novel uses and its real necessity to mankind, also to present a film describing make up, manufacture and materials used in glass. Dr. Horace Roberts, field director of Red Cross was to give a brief presentation of the work and needs of that organization. Dr. Roberts, rockhound as well as Red Cross official, has served in Alaska and in Europe. February 22-24 field trip was planned to Trona as guests of Searles Lake gem and mineral society.

. . .

Commander David A. Evans, U.S.N., talked on streamlining your attitude at February 13 meeting of Long Beach mineralogical society. Members having exhibits were: Otoupolik, mercury minerals; Webb, ore minerals; Gordon, cut and polished work. January field trip to Mint canyon area yielded specimens of oil sand, howlite, colemanite, moss agate, nodules. Paul Fischer found an outstanding piece of eye agate. February 23-24 field trip to Chocolate mountains was planned. It is reported that this district is to be made into a permanent bombing range, precluding future field trips.

. . .

James O. Jackson, Phoenix, Arizona, has inaugurated a guide service for central Arizona. He knows the desert thoroughly, both the places usually visited by tourists and interesting spots off the beaten path.

Can any one tell us the name of the cradle board used by Indians to carry papooses? Several people have inquired and no one seems to know the Indian term.

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Jay Wilson, who has been acting vice-president and secretary of Long Beach Mineralogical society, resigned the secretary job in order to devote his time to duties of vice-president and program chairman. Mildred Bond was elected to fill the vacancy. Her address is 1521 Gardenia, Long Beach, California.

HUGE SILVER NUGGET FOUND IN SOUTHERN ARIZONA

Paul Bloomer, an employee of the Bixby ranch, Globe, Arizona, reports having found a 48 pound nugget of native silver in Richmond basin, 13 miles from Globe in the Apache mountains. Such a find might have an intrinsic value, by the ounce, of more than one thousand dollars at present price of silver, but would bring an immensely greater price as a fine specimen, from some museum or wealthy collector.

Such finds, although rare indeed, are not at all unheard of in southern Arizona. A number of years ago an experienced prospector, Floyd Blevins, found in the same area nuggets worth several times as much as the one found by Bloomer.

Imperial Lapidary Guild, El Centro, California, after being inactive during the war period, recently reorganized and already has 18 active members. Leo DeCelles is president, L. G. Beale is secretary-treasurer. Guild meets second Fridays at member homes, and takes Sunday field trips.

Sgt. Dora Andersen, 59th WAC Hosp. Co., Hosp. Center, Camp Carson, Colorado, is starting a jewelry class for boys in the hospital. They need cabochons of all sizes and shapes suitable for rings, pins, bracelets and pendants. Dora is a former Sequoia mineral society member and the club plans to send material to her.

December Arkansas mineral bulletin, official organ of Arkansas mineralogical society has a treatise on diamonds in Arkansas, an article on early history of Hot Springs and another on the thermal waters of the Hot Springs district. These hot springs and four square miles surrounding them were "reserved" by congress in 1832 "for future disposal" and thus became the first United States national park.

January bulletin of Marquette Geologists has a comprehensive article on the zeolite minerals most important of which are heulandite, stilbite, chabazite, analcite and natrolite. Best known to rockhounds is thompsonite for its beautiful color and design. Thompsonites are found along the shores of Lake Michigan.

Jess Abernathy spoke on the art of cabochon cutting and construction of the diamond saw at February 7 meeting of Gem Stone Collectors of Utah, held in Hotel Newhouse, Salt Lake City. Exhibit of the evening was a 1560 carat, facet cut, smoky topaz.

Fred Rugg is chairman of fifth annual show of gemstones by Los Angeles lapidary society. The exhibit will be housed in Los Angeles county museum on Exposition boulevard May 4-June 28.

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By LELAND QUICK

For months my mail has been heavy. I answer some inquiries direct when they repeat information previously given in these pages. But I always spend more time on letters to folks who are where I was a few years ago when I didn't know my head from an agate. Typical of these exchanges of correspondence is the following letter from Nellie Glover, of Tracy, California, who can be pardoned for thinking she can polish rocks with a brush. If you cut rocks all you will gain by reading further is the memory of how little you knew yourself about gem cutting at one time.

Mrs. Glover writes, "I would like to get some sort of little outfit to polish stones. I have a lot of agates and other pretty stones that I have been saving through the years. Now my family is raised and I have time to play and wondered if you would have some advice about what I should get. I have a small electric motor with a brush for garage work which I could use. I have never done any stone polishing or seen it done and I don't want to spend too much on it but just polish for my own pleasure. Please tell me what I need and where to get it."

I didn't offer Mrs. Glover the facetious replies I got when I asked others the same questions seven years ago. These replies were usually built around the idea that you don't have to be crazy to polish rocks—but it helps. Here is my letter which can just as well serve as an open letter to all people "queer" enough to pick up and hoard pretty rocks with no definite purpose in mind.

"Dear Nellie Glover:

Your "electric motor with a brush for garage work" will be of no value to you in polishing "the pretty stones you have been saving through the years." The motor is a start toward a lapidary shop but the only use for the brush is to clean up the shop itself.

"You see, Mrs. Glover, rocks are not polished as you would shine a pair of shoes, which have to be polished often because the shine disappears. A polished rock keeps its shine forever if some harder substance doesn't come along to mar the polished surface. Your window panes and the diamond in your ring were polished very similarly but you can mar the polish on your window panes by scratching it with your diamond. That is because the diamond is harder than the glass. You can cut bread with a knife but you can't cut a rock with it because the rock is harder than the steel edge. Therefore a rock can only be polished by an agent that is harder than the rock itself. An agate, rated about 7 in hardness, can be polished by carborundum, which is rated higher and is much harder. The agate is ground by having the undesirable portion worn away by the abrasive action of the carborundum until you have the agate in the shape you desire it.

"This grinding is usually done by a wheel made of carborundum which is kept wet to hold down the heat generated by the friction. The wheel is mounted on an arbor and driven by a pulley from an electric motor. After you have "roughed" out the agate to the desired shape you have to polish it by wearing away the rough edges and the scratches you can see in the surface. You finally achieve a stone that becomes a

gem which increases in polish as more and more scratches are worn away by using wheels covered with cloth to which fine grits of carborundum have been glued and additional wheels of felt or leather to which you apply finer wet abrasive agents. After long and arduous effort something happens to the surface of the gem that few men who are not scientists really understand. The molecules of the mineral (all stones are minerals) on the surface being abraded seem to melt and flow together just as if they all split at once (molecules are composed of atoms, you see) and the surface takes on a mirror-finish polish free from scratches. It stays that way forever if some harder substance doesn't come along to scratch it again. This polish is immeasurably thin and is called a "Beilby layer" after the man who advanced this theory of the flow of solid surfaces.

"To avoid the great labor of grinding big rocks down to very small ones we saw them in slices just as your butcher slices baloney in his cutting machine. As rocks are hard we can't have teeth in our saws as in wood saws or a sharp edge as in the knife blade in the slicing machine. We therefore insert very small pieces of diamond in the edge of our circular saw blade as the diamond will be harder than anything we try to saw with it for it is the hardest substance known. This blade revolves in oil to keep it cool (water would rust it) and is powered the same way as other equipment.

"Until recently lapidary equipment was always homemade but now you can buy it from advertisers in these pages about as cheaply as you can make it. You should buy some books and read about gem cutting before you spend money for equipment. Get the *Art of Gem Cutting* by Duke (\$1.50) and *Jewelry, Gem Cutting & Metalcraft* by Baxter (\$2.75) from our book department. If you are still interested, read magazines about minerals and gem cutting and observe the many gem and equipment advertisements in them. These magazines are *The Mineralogist* at Portland, Oregon and *Rocks & Minerals* at Peekskill, N.Y. A postal request to the publishers will bring you a free sample copy, I am sure.

"Proceed with this advice, Mrs. Glover, and learn to create finished gems for your happiness. God made the rocks but you can create gems that shall be deathless and exist somewhere to be enjoyed long after you become as the dust you grind from the rocks. So little of the paintings being painted today, the music and poetry being written, will exist at all 5000 years from now and all the "fancy work" now in existence will long have mouldered. The gems, the good ones, still will be in someone's loved possession if people exist at all in that long era down the years.

"I feel infinitely sorry for the people (there are so many) who never once in their life have any desire to create something of joy themselves. But for those who do there is nothing that can give more wholesome satisfaction than to convert a rough stone of the field or desert into a shining, sparkling, shapely gem of beauty in the palm of one's hand. This has brought me much happiness and I hope you will find happiness in it too."



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10 x 1 1/2-inch.....	7.00		7.50
12 x 1 -inch.....	6.75		7.25
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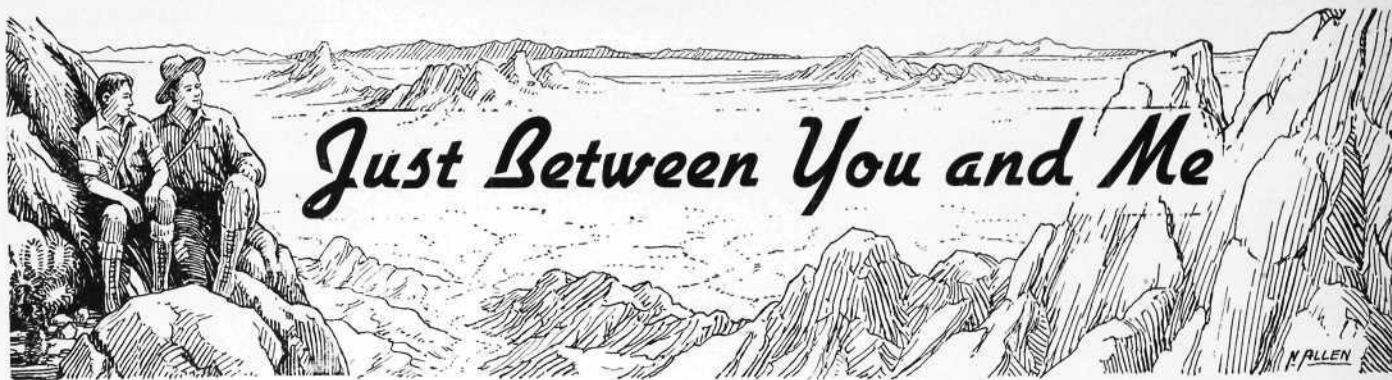
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By RANDALL HENDERSON

IN BLYTHE, California, a few days ago I stopped for a chat with my old friend Ed F. Williams. For many years Ed has served as a sort of ambassador of goodwill for the Palo Verde valley. His many civic duties include the secretaryship of the chamber of commerce.

Williams is the world's champion optimist—but I discovered he has one pet peeve. "Why do all the blankety-blank chambers of commerce in California insist on picturing the saguaro cactus as a California attraction?" he exploded. "The saguaro belongs to Arizona. It is Arizona's state flower. Californians have no more right to claim it than Arizonans would have to publicise the giant redwoods as an Arizona asset."

Williams is right. But I attribute California's infringement more to ignorance than to dishonesty. With few exceptions—and Ed Williams is one of them—chamber of commerce secretaries and real estate men know less about the natural history and natural resources of their communities than the average teen-age high school boy.

Some day, an enterprising little town with a lot of vision in its leadership is going to abolish its chamber of commerce and organize a chamber of culture—and within ten years it will be the best town in the United States in which to make a home. And purely as a by-product, it will have outstripped all its neighboring communities in commercial progress.

* * *

Either Desert is improving, or Elmo Proctor is slipping. We sort o' depend on Elmo to straighten us out when inaccuracy creeps into our desert lore and history—and we haven't had a letter from him in months. For the information of those who do not know, Elmo has a little wayside gas station at Cronese, near Baker, California. The prize specimen in his rock collection is a musical geode. You can hear the broken crystals tinkle inside the crystal-lined cavity when you turn it over.

* * *

Last night I sat out under the stars, overlooking one of many barrancas slashed across the face of the Southern California desert when the Colorado broke loose in 1905 and formed the present Salton sea, and witnessed the 1946 presentation of Desert Cavalcade by my old friends in Calexico and Mexicali.

It was a stirring spectacle—the trek of the gallant Juan Bautista de Anza and his colony of first California settlers from Tubac in 1774-75, the coming of the trappers and mountain men to the Southwest, the march of Kearny's army and the Mormon battalion, the stage drivers and freighters on the old Butterfield road, and eventually the reclamation of the great below-sea-level Imperial basin—all these passed before me in colorful pageantry.

It was necessary to discontinue Cavalcade during the war years, but I am glad it is to go on. One of the charms of this outdoor pageant is that it is presented by folks who have had no professional training in the arts of the stage. Their drama is simple and genuine—and beautiful.

Having served 15 years as editor of Calexico's newspaper, I

know something of the effort that has gone into Cavalcade and the fiesta which accompanies it. It is a tremendous undertaking for a little community of busy people. And it is all done without thought of profit or financial reward. If the gate receipts pay for the costumes and seating and properties, the sponsors are happy. That is all they ask.

Speaking for the people of the desert country, I want to express deep-felt appreciation to Les Dowe, the president, Max Brents, who directed the program this year for the first time, and the scores of associates who have contributed weeks of effort to the success of a project so worthwhile.

According to H. R. Sisk, publisher of Nogales Herald, who was present at the Cavalcade as the personal representative of Governor Osborn of Arizona, the remains of Captain Juan Bautista de Anza lie in an unmarked grave at the little Catholic church in Arizpe, Sonora. The church has a record of the burial.

It is Sisk's suggestion that Californians, Arizonans and the proper authorities in Mexico should honor Anza and his band of colonists with two monuments—one at the grave in Sonora, and one at Tubac in southern Arizona where the Anza expedition began its historic trek across the desert to San Francisco where the first colony was founded.

Desert Magazine would like to subscribe to such a tribute.

* * *

On the cover of the current issue of the California Mining Journal is the picture of Joshua trees, with the following caption: "The Joshua Trees of San Bernardino and Riverside counties—eight hundred acres of them block the mining industry in that area! This vast acreage has been withdrawn from public entry to protect a few scrubby trees that are of absolutely no value—sentimental or otherwise . . ."

There are many of us—staunch conservationists—who will agree that a limited area on the eastern side of the Joshua Tree national monument should be excluded from the park reservation. It should not have been taken into the monument in the first place. It is mineralized terrain with little in the way of scenic attraction.

It is true, no one has ever found minerals of any great value there. Probably more money has been put into the ground than has been taken out. Nevertheless, it is good prospecting terrain, as evidenced by the countless "coyote holes" which dot the landscape. I would favor reopening that part of the monument to prospectors. They'll have a lot of fun and recreation there, and one of them might make a strike.

But when the Mining Journal writer takes the attitude that the whole Joshua Tree monument should be turned back to the mining fraternity because its Joshua forest and other scenic attractions have "absolutely no value—sentimental or otherwise," he is taking in too much territory. By the immoderacy of his demands he is placing every true conservationist in the position of having to oppose his demands. He talks about sentiment, but his words are mere gibberish—because he does not know the meaning of the term.



LIFE WITH LITTLE NO-SHIRT AND HIS NAVAJO PEOPLE

Running an Indian trading post in the middle of nowhere might seem to the reader-at-large an isolated, monotonous sort of existence. But Sallie and Bill Lippincott found life to be the opposite, when they bought Wide Ruins, in northeastern Arizona.

Their four year adventure there is recounted by Alberta Hannum in *SPIN A SILVER DOLLAR*. It really is three stories in one—for besides the story of the young traders is that of Little No-Shirt, or Jimmy, the Navajo boy whose remarkable artistic ability is attested in the 12 pages of his paintings which illustrate the book, and the third part is a beautiful and feeling description of the Navajo country through all the seasons.

The young traders' education into Navajo character started with their unfortunate hiring of the Shorty clan to repair the buildings—they were not bad Indians—"it was just that they had leisure down to an art." It progressed through their first sale, when they gave toy balloons as prizes with each purchase, and Joe Toddy saw a big red one which so struck him that he bought a pair of grey striped morning trousers, to win the coveted red balloon. Their education reached a peak when Little Woman brought in a rug to trade. "It was a bordered rug of terrific yellow, with HELL woven into it in bitter black." (She had set out to weave Hello, but unconcerned explained there was no room for the o.)

A narrative account of the Lippincotts' life at the post could give no inkling of the amusing and ludicrous situations produced by the wildly imaginative "logic" of the Navajo and their utter innocence of many white ways. Some of the laughs come close to guffaws, but most of them are gentle, some a bit wistful and touched with pathos.

Running through the pages, like a recurring theme of music, shy and silent little Jimmy paints the animals of the desert—the rabbit and the mouse, the skunk and the wildcat and the deer, and the wild horses of the hills. There was a fresh amazement, each time his little drawings turned up, now on Sallie's kitchen table, now near the front door, that so real a little boy (frequently appearing with a black eye) could produce pictures of such delicate sweetness and poignant beauty.

This is a book rich in the daily life of a lovable people—their weaving, their ceremonies, religion, children and education, and their country. It is the kind of book you have the urge to read aloud to good friends. Although it is told in the third person, it has the quality of a firsthand record, sensitive to every slight happening and feeling as only the person experiencing it could be sensitive.

Viking Press, New York, 1945. 173 pages, 12 pages of full color paintings. \$3.75.

DICTIONARY TELLS MEANING OF SCIENTIFIC NAMES

A volume which should be a joy to anyone who likes to learn the scientific as well as the common names of plants and animals is *THE NATURALIST'S LEXICON*, compiled by Robert S. Woods and published in 1944 by Abbey Garden Press, Pasadena. With this book in your library, some of those strange long names won't seem as ridiculous as they look. When you see Desert Lilies blooming, and someone says, "That's *Hesperocallis undulata*," you can understand that, for it describes the plant accurately—the wavy-leaved beauty of the west, or evening. And when you come on to an *Echinocactus polyancistrus* you'll find the plant is just what its name says it is—a cactus prickly like a hedgehog with many hooks.

This book is a special help to those who have not studied Latin and Greek, which includes the majority of us. It was written as a guide to pronunciation of scientific names and to explain the derivation and meaning of them, both to make them easier to remember and to provide a clue to the outstanding characteristics of the species.

Introduction analyzes the construction of Greek and Latin names and gives rules for pronunciation. There are 257 double-column pages of scientific words most commonly used, with pronunciation and English meaning. A supplement of 23 pages has special lists of nouns, adjectives, verbs and prefixes. \$2.75.

REPORTS ON RAINBOW BRIDGE AND MONUMENT VALLEY AREA

Among the scant literature to be found on the little explored Rainbow Bridge-Monument Valley region are three publications of University of California, Berkeley. First of them is *General Report on the Rainbow Bridge-Monument Valley*

Expedition of 1933, by Ansel F. Hall of the National Park Service, who organized the expedition to study geology, botany, zoology and especially the archeology of the area, with 28 illustrations and two maps. *Report on Archaeological Reconnaissance in the Rainbow Plateau Area of Northern Arizona and Southern Utah*, by Lyndon Lane Hargrave, described archeological work of the same expedition in more detail and included 16 illustrations and two maps.

A large volume entitled *Archaeological Studies in Northeast Arizona*, by Ralph L. Beals, George W. Brainerd and Watson Smith, contains results of archeological field parties which were at work every year from 1933 to 1938. This study contains 31 full page plates, 74 text illustrations, mostly of pottery designs, and a number of maps including a large folding map of Tsegi canyon. Although some material remains to be published, this volume contains a large share of what is known about the pueblo civilization in this picturesque and isolated area.

BOOK BRIEFS . . .

Still another novel by the late Zane Grey, who wrote faster than the publishers could print his books, was scheduled for February publication by Harper. Title is *Shadow on the Trail*, with a plot typical of the romantic westerns which have sold 16,000,000 copies.

The Turquoise, a novel with setting in Santa Fe and New York in the 1870's, was scheduled by Houghton Mifflin for winter publication. Author is Anya Seton, daughter of Ernest Thompson Seton of Santa Fe, who also wrote best-sellers *My Theodosia* and *Dragonwyck*.

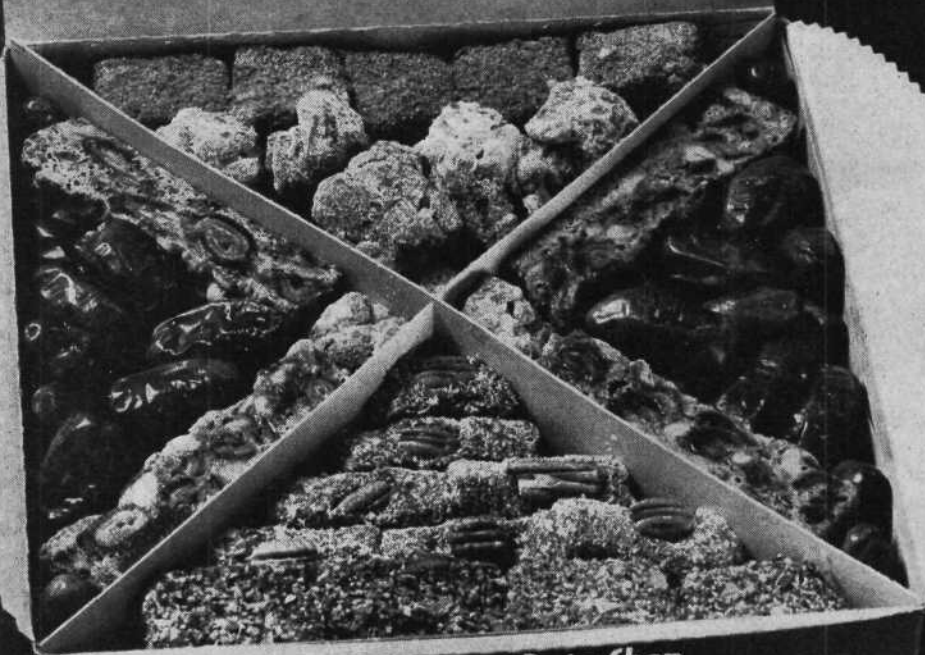
Among contributors to Winter issue of *Arizona Quarterly* (University of Arizona publication) are two writers well known to DESERT readers. Godfrey Sykes, eminent Southwest geographer and author of the recent autobiographical *Westerly Trend*, describes the secret snake-washing ceremony which precedes the Hopi Snake Dance, a rite which he witnessed in 1893 after being adopted by the Antelope fraternity as a neophyte. In the same issue Richard Van Valkenburgh discusses the traditional and historical basis of Navajo government.

Several Southwestern books recently have been reprinted, among them Federal Guides for Death Valley, and states of Arizona, California, New Mexico and Utah. Other titles again available include J. Frank Dobie's *Coronado's Children*, the Coolidge's *The Navajo Indians*, *Saga of Billy the Kid*, *Wyatt Earp* and *Kit Carson*. Others are promised by publishers as soon as more paper is available.

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